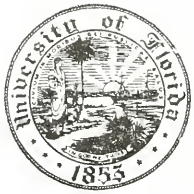

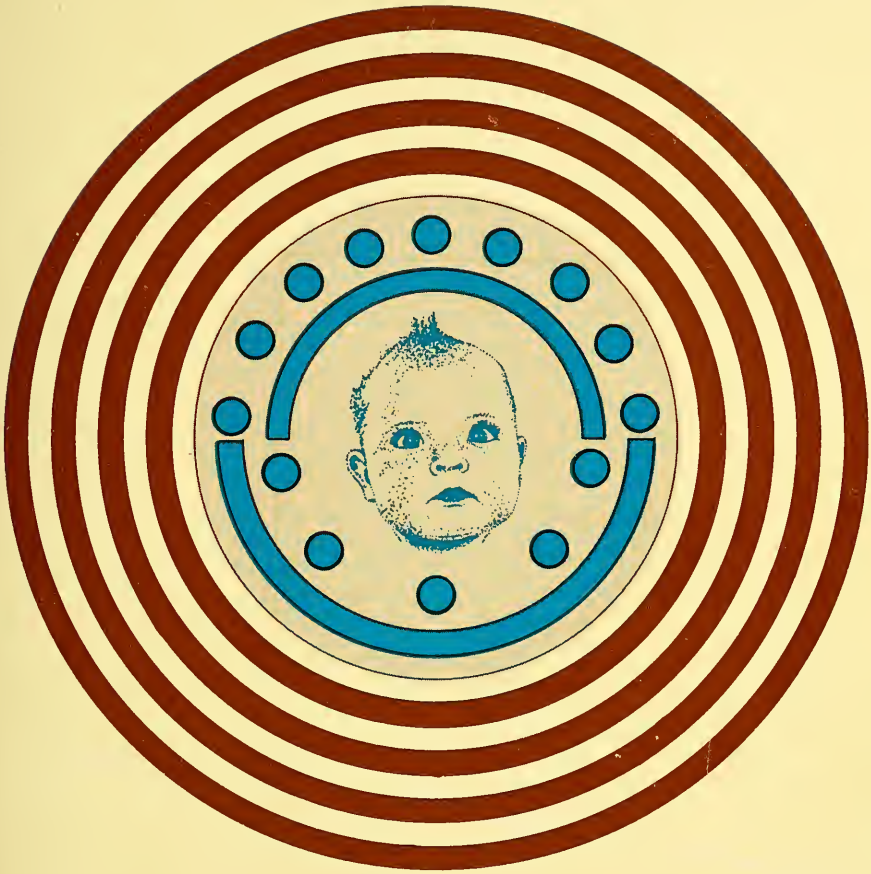

family planning and population studies

-state of the fields

edited by james e. sundeen

FAMILY PLANNING AND POPULATION STUDIES
- STATE OF THE FIELDS -

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Funded by:

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James Davis Foundation

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PREFACE

Family planning has traditionally been a taboo subject in our society. Population education wasn't even heard of until the early 1960's. Even now discussions of family planning and population education are shrouded in ethnic, racial and religious connotations. Often we seem to view the problem as one which belongs to "those other people." Our thinking must be greatly expanded.

Concerned individuals in the State of Florida felt a need to study the problem from a variety of perspectives. The idea of an institute evolved which would bring together expertise in the theoretical, educational and practical aspects of family planning and population studies.

Under the directorship of James E. Sundeen, faculty member of the Department of Social Studies Education at The Florida State University, such an institute was held during the summer of 1971, on the Florida A&M campus. The institute has developed and tested population education and family planning materials and programs which can be used by personnel of social service agencies and for inclusion in appropriate college and university courses.

The institute was conducted with the cooperation of the Florida Board of Regents, The Florida Department of Health and Rehabilitative Services, Planned Parenthood/World Population of New York, The Florida A&M University, Florida Community College System and The Florida State University. Funding was provided by grants from Health, Education and Welfare (Social and Rehabilitative Services), The Arthur Vining Davis Foundation and the James Davis Foundation.

Development of the Idea

On October 21, 1970, a conference was held at Florida A&M University, arranged by the Bureau of Maternal and Child Health, State Division of Health and featuring Mrs. Katherine B. Oettinger, retired Chief of the Children's Bureau of HEW, as the speaker. The stated purpose of the conference was:

1. To explore the desirability of an interdisciplinary approach to the development of a more relevant program of research and instruction in family planning and population studies for the several professional schools of both universities, and
2. To explore the desirability and feasibility of planning a seminar or workshop for the summer quarter of 1971 which would be devoted to furthering the concept stated in item one.

The meeting was attended by persons representing education, nursing, social work, home economics, health and physical education, and sociology from the faculties of Florida A&M University and Florida State University. In addition, the State University System, the Division of Health, the Department of Education, and Legislative Committee on Public Health and Welfare were represented.

It was decided that there was a need for a family planning summer institute which, utilizing an inter-disciplinary approach, would be aimed at "educating the educator." The integration of family planning and population studies content into curricula would be the long-range goal.

Following this initial meeting, an organizational structure was set up (see organizational chart). With the "go-ahead" approval from the Presidents of Florida A&M University and the Florida State University, the Chancellor of the Florida Board of Regents and the Secretary of the Department of Health and Rehabilitative Services, the following plans were made to conduct a "first of its kind" project.

Planned Parenthood/World Population of New York was consulted with reference to obtaining matching funds in order to qualify for a federal grant from Social and Rehabilitative Services. In addition, Planned Parenthood/World Population provided invaluable input as the project program was developed including identification of consultants and materials. Mrs. Dorothy Millstone, of PP/WP of New York was particularly instrumental in obtaining matching funds from the Arthur Vining Davis Foundation and the James Davis Foundation.

Dr. Travis Northcutt, Florida Board of Regents and Mr. Robert Browning, Health and Rehabilitative Services, State of Florida, were the prime-movers behind the entire effort. Without their initial ideas and efforts the project never would have happened. Numerous individuals served on advisory committees (see committee rosters) without any reimbursement except the intangible reward of doing something that needs to be done in order to improve the quality of life on earth.

The Summer Institute

Project activities centered on an eight weeks summer institute which brought together twenty post-secondary faculty members (see participant roster) from the State University System of Florida (Florida State University, Florida A&M University and Florida Community Colleges) including representatives from Sociology, Psychology, Social Studies Education, Biological Sciences, Political Science, Social Welfare, Consumer Economics, Nursing, Pharmacy, Health Education and Urban and Regional Planning. The rationale for multi-institutional and multi-disciplinary participation in the project includes the attempt to provide exposure to as many perspectives as possible including the theoretical, the education and the practical aspects of the areas concerned.

Outstanding panels of experts provided input from a variety of perspectives. One such panel was composed of: Dr. Alan Guttmacher, President, Planned Parenthood/World Population; Mrs. Katherine Oettinger, Former Chief of the Children's Bureau and Deputy Secretary of Health, Education and Welfare; Dr. Frank N. Beckles, Director, National Center for Family Planning Services, U.S. Department of HEW; Mr. Douglas Stewart, Director of Community Affairs, Planned Parenthood/World Population.

A second panel was composed of: Mrs. Athalie Range, Secretary, Florida Department of Community Affairs; Dr. Travis Northcutt, Director of Academic Planning and Community Services, State University System of Florida; Dr. Richard Hodes, Chairman, Committee on Health and Rehabilitative Services, Florida House of Representatives; and Dr. Berel Held, Health and Rehabilitative Services Family Planning Coordinator.

In addition, outstanding resource people consulted with the Institute participants as the program related to their area of expertise.

The Problem

There is a little disagreement about the crucial problem of over-population and the accompanying problems of environmental pollution, shrinking resources in production of foodstuffs, economic deprivation, and the inherent social problems of population density. We know that problem identification does not always lead to solution. This seems to be the case with population education. However, this is only one side of the problem. The psycho-social and economic tensions that result from the births of unwanted children is a facet of the problem that we have more trouble dealing with on an objective and consensual level.

Although we would like to think otherwise, professionals, be they teachers, doctors, nurses, social workers, psychologists, planners, home economists, etc., are not free from viewing family planning and population studies without cultural biases. This fact is complicated by professional

bias or simply lack of information. Unfortunately education in many fields is grossly lacking in helping the teacher-to-be, the social worker to-be, etc., gain insights into this problem which could be imparted to those persons he touches in the practice of his profession.

What is the reason for this education gap in our institutions of higher learning? (1) The emphasis on comprehensive family planning and population studies programs is a relatively new one for our society; (2) Many professions view the problem as a medical/clinical operation with little importance for their members, and (3) Educators are themselves grossly lacking in knowledge and information as well as being caught up in the cultural confusion that has developed around family planning and population studies.

With the foregoing concerns in mind the project was planned and carried out. General objectives were:

1. To develop an organizational model which is appropriate to inter-agency and inter-institutional use, which includes planning, administrative, operational and evaluative components utilizing multi-disciplinary approaches to social problems.
2. To increase knowledge of and sensitivity to physical, social, and cultural characteristics of family planning and population studies.
3. To develop plans for expanding and strengthening family planning and population studies content and programs within post-secondary educational institutions and related state agencies.

Extensive evaluation is being carried out under the direction of Charles H. Adair, faculty member of the Department of Social Studies Education at Florida State University.

ADDITIONAL ACKNOWLEDGEMENTS

Without the generous and timely support provided by the Florida A&M University the program would not have become a reality. Dr. Paul Mohr, Dean of Education, provided excellent facilities to house the institute. Mr. Harold Jenkins, Director of Continuing Education, devoted numberless hours serving on committees and helping to solve those numberous and varied administrative problems that always arise. Mrs. Victoria Warner was most effective as the institute program coordinator.

In addition to the above appreciation is expressed to Mr. John Foster who served as assistant project evaluator under Dr. Charles H. Adair. His efforts in the area of formative evaluation helped make the institute program more relevant as the program proceeded. And last but by no means least, the institute secretary, Mrs. Barbara Hurst, made the drudgery of office work seem a joy. Later, Mrs. Fran Hudson took over the secretarial tasks and served in a most excellent manner.

Summary

The project is unique in that a cross section of institutions and disciplines have been able to pool their resources, have been able to work together with the result that tangible products will be employed by the Florida State University System and the Florida Department of Health and Rehabilitative Services.

Alan F. Guttmacher, M.D., Mr. Family Planning of the world and President of Planned Parenthood/World Population, participated on an opening panel of experts in the Family Planning Institute. His following remarks trace the growing acceptance of family planning services by people in general and the United States government in particular.

Family Planning—A Perspective

Alan F. Guttmacher

Fellow panelists and fellow students, I am of course very pleased to be here. And I want to point out, I think, the significance of this meeting because this is a cooperative venture which has been brought about by the Departments of Sociology, Education, Nursing, of the two schools and of course with the help of the Bureau of Health and Rehabilitative Services, the Board of Regents, Planned Parenthood in New York and Planned Parenthood locally here in northeast Florida so that we have then the goodwill and the sponsorship of a good many groups.

I think the attitude is that the problems that we are going to discuss, population and family planning, come across all of our cisciplines. Too long, it has been thought, that this is primarily the concern of the philosopher, the physician and that it did not have sufficient impact to involve other disciplines. If we are going to get anyplace in this country and possible in the world with the projects involved, curtailment of population growth, with the elimination of unwanted conception, we've got to branch out to involve other thoughts, other disciplines. It is going to broaden the base materially. I am reminded of the very interesting experience which I had perhaps two years ago, which is a very simple story, but I think it gives the flavor of what I mean.

A couple of years ago I was in Taiwan and there is a remarkable group which they call rural rehabilitation; actually it is largely public health. A man named S.C. Shu, and I had breakfast together. First, I would like to describe him to you, because he has such an explosive personality. He looks something like an educated mosquito, all angles and vibrations, and long fingers, and he pointed his finger at me and said, "Do you know what is wrong with our teaching?" I said, "No, what's

wrong?" He said, "I went to my granddaughter's class the other day just to see how they were doing, and the teacher was teaching them multiplication. The teacher said two times one apple is two apples, two times two apples is four apples, and two times four apples is eight apples. That is utterly wrong. Two times one people is two people, two times two people is four people, two times four people is eight people; that is just what she should have done." And of course, that is what we mean. It is very important in economics, it is very important in sociology, it is very important in geography. You can name the disciplines and we can give the occupation. Therefore, we've gotten you together to try to translate this attitude to you so in turn you will translate this attitude to your own discipline and to the people you are in contact with. This then is a kind of project that may work, it may fall flat on its face, there is no way to know. Whether it works or not depends in large measure on the givers and the takers. The givers are those of us who have taught, the takers are those of you who are recipients, and in this project you will challenge what is said to you. You will not let it go through your ears and simply register as a kind of record on your brain, but you will assimilate and challenge and discuss. You have the great advantage from what I saw of the curriculum of having people with you who are extraordinarily competent in this field. The project is so exciting and so interesting that those who put the project on had no difficulty in being able to assemble a faculty of their first choice.

Now your State of Florida has done extremely well with family planning. Let me go back to people who have been important in the field. I remember six or eight years ago discussing this with Dr. Sowder when family planning was not part of the state program. Certainly Dr. Sowder has felt that these people deserve a great deal of credit, so that family planning is now a part of the work of the health department of all your 67 counties. Your state is unusual in that there is not a blank spot. It doesn't mean that you are satisfied with the work done. If it were complete so that the job could be totally eliminated, then perhaps the conference would have no point. But you are one of the best states in the area of family planning. But there are desert states in which family planning has no stature, no understanding, and no involvement. So I am talking to you here in an area where family planning is given a great deal of stature.

Now when it comes to the ordinary development of this field, I need only remind you that at the Washington level, at the federal level, there was no involvement in the whole area of family planning until 1965. It was a forbidden topic. You all remember that our great president, President Eisenhower, when asked in 1959 what he thought about the world population problem and what view the federal government had toward its solution, said that this is no business for government, this is only for private philanthropy. Eisenhower, of course, retracted his statement several years later, but this was the attitude of government

in 1959. In 1965, the federal government gave a $9,000 grant to the City of Corpus Christi in order to help the Health Department mount a family planning program. This was the beginning of the involvement by government. A year later HEW made an important statement, showing their interest in this and there has been constant increase and escalation. We cannot forget that in 1965 the United States Supreme Court made a very vital pronouncement when they declared the law of Connecticut which prevented either the prescription or use of birth control as illegal, when they overthrew this law and made birth control and its prescription and use completely legal, otherwise it takes away the personal rights of the individual. Of great importance was the fact that President Nixon on July 18, 1969, sent a message to Congress on the area of domestic family planning. Of course, since then other things of even more importance have been mounted at the presidential level. As you know, the President appointed a Commission on Population Growth in America's Future chaired by John Rockefeller, III, made up of 24 studious individuals. They have presented their preliminary report, their final report will be presented next May. And then of course, the Tydings Bill has been passed by the Congress which allows reasonably large sums for domestic family planning and to the area of research. So our federal government is becoming more deeply involved constantly in the importance of this from the domestic and the world point of view. I would just remark briefly on both the domestic situation and the world situation to try to document the last statement made about the importance of the problem. In the President's Commission's preliminary report, they point out that if suddenly by magic, which is most unlikely, America would choose to go into population equilibrium having families of 2.2 children, even if this were done tomorrow by agreement among all the couples who have not produced children we would still have at the end of the century 266 million Americans instead of the 207 million we have now. And if the young people who could produce children, would have three child families instead of two, then they tell us that we would have 321 million Americans at the end of the century.

I need not point out to you that in addition to the gravity of numbers there is the gravity of unwanted pregnancies. This is attested to by the tremendous number of illegitimate births in this country which are now in the area of 300,000 per year and it is attested to by the tremendous number of illegal abortions. Also this is attested to by forced marriages, one out of five being pregnant at the time of marriage. There are many things that attest to the fact that we have not reached the door of only wanted children born to responsible parents, so that America has a very real problem with their population increasing at the rate of 2 million per year. There are 10,000 babies born a day in this country, 5,000 people die, and 1,000 more immigrant, which means we increase by 6,000 per day, which means we increase something over 2 million per year. As the President pointed out, this would actually require the building of

a new city for 250,000 people every 40 days in order to accommodate this increase in population.

There has been a study that most of us feel is very crucial in this area of the unwanted pregnancy, the Westhoff study, which shows that between the period of 1960-65 of the children born some 22% were not wanted by one or the other parent. Now as far as the world is concerned, certainly I need not point out to you that the United States is in a relatively favorable position with a population growth of 1%. In an affluent country, we can take care of the critical problems much better than places like India, Pakistan, Indonesia, Egypt, and so forth.

The world population is of immense gravity. There are scholars who question whether the world is threatened more by the atomic explosion or by the population explosion; both of course are unpardonable in the amount of damage which can be done. I congratulate you for coming here, I am glad you are here; I certainly hope and expect that this will be a very, very rewarding ten weeks.

Thank you very much.

Frank N. Beckles, M.D., Director, National Center for Family Planning Services, H.E.W., sets forth the federal government's growing commitment to family planning programs.

The Federal Role In Family Planning

Frank N. Beckles

I am honored to be among the panel addressing the opening session of this most appropriate institute.

The panel itself is in some ways symbolic of the development of family planning in the United States. Dr. Guttmacher and his organization, Planned Parenthood-World Population, has of course worked brilliantly and tirelessly in the private sector to make family planning services a right for everyone rather than a privilege for the few.

And Mrs. Oettinger has worked ceaselessly in the *public* sector to bring family planning services under the aegis of Federal sponsorship and action.

I am here today as the representative of a program that is in many ways a culmination of their—and many other's—hard work over long years. As Director of the National Center for Family Planning Services, a division of the Health Services and Mental Health Administration within the Department of Health, Education and Welfare, I would like to tell you how we are attempting to extend and further the distinguished efforts of those who preceded us.

The National Center is the first Federal program to focus exclusively and directly on providing comprehensive family planning services to those who need and want them.

But before I talk about what that means, I want to point out that there are many trails awaiting exploration. For example, this panel is in many ways a historical assemblage, because many people in this audience are pioneering in their own way to integrate knowledge of family planning,

family life and population studies into standard school curricula. Another "first" will occur next fall—October, to be precise—when the U.S. Post Office will put into general circulation a stamp signifying the importance of family planning in the U.S. It is a happy occurrence that the issuance of the new stamp will coincide with the observance of the second anniversary of the National Center for Family Planning Services when we hope to honor, among others, Margaret Sanger, the creator and guiding spirit of the family or birth planning movement.

I cannot help thinking that Mrs. Sanger would have been most pleased to know about the Federal government's present role in advancing family planning as a major public health-promoting measure.

It's been 55 years since Mrs. Sanger first began her work, when she witnessed the needless death of Mrs. Sadie Sachs—a woman who finally died from self-induced abortion—and who, when she had asked her physician how to prevent having pregnancies, got the reply, "Tell your husband, Jake, to sleep on the roof."

Clearly, we have come a long way since then, but we still have a very long way to go.

Many of the more flagrant problems in the field have been dealt with reasonably successfully. Religious barriers to service have come to be less of an obstacle then was first feared; the revocation of the old Comstock laws of the mid-19th century forbidding the sale of contraceptives because they were obscene and lewd was a major but successful battle. The Supreme Court made it clear that States had no business legislating the sale of contraceptives in their landmark decision in the case of Griswold and Buxton versus the State of Connecticut.

On Federal level, there have been developments almost as dramatic. Although the U.S. has been funding family planning programs overseas for many years, it is only within the recent past that we have seen a formal commitment on the part of the U.S. government to provide her own citizens with that most basic of health services—voluntary comprehensive family planning services. In fact it is still somewhat astonishing to recall that just a little over ten years ago President Eisenhower stated publicly in a press conference that he could not "imagine anything more emphatically a subject that is not a proper political or governmental activity" than family planning. It is only fair to point out that later, when his term of office was over, President Eisenhower made a complete turnabout in his thinking and eventually became honorary co-chairman of Planned Parenthood-World Population, saying, "Once, as President, I thought and said that birth control was not the business of our Federal government. The facts changed my mind . . . millions of parents in our country—and hundreds of millions abroad—are still denied the clear human right of choosing the number of children they will have. Governments must act, and private citizens must cooperate urgently through voluntary means to secure this right for all peoples. Failure would limit the expectations of future generations to abject poverty and suffering, and bring down upon us history's condemnation."

Presidents Kennedy, Johnson and more recently, President Nixon, made statements indicating concern with the fact that many millions of individuals did not have the desired means to control their fertility.

The Office of Economic Opportunity made the first domestic experimental grants in family planning in 1964. In 1967, HEW's Children's Bureau was given authority to make project grants in family planning, and the Department of Housing and Urban Development began to incorporate family planning into its Model Cities programs as part of the effort to meet the health needs of people in our most deprived neighborhoods.

But the recognition of family planning as an inalienable right to which all Americans are entitled came of age on December 24, 1970, when President Nixon signed the "Family Planning Services and Population Research Act of 1970" (copies of which I have brought with me) which formally committed the Federal Government "to expanding, improving and better coordinating Federally funded family planning services and population research activities." This momentous legislation established a formal link between the Center for Population Research at the National Institute of Child Health and Human Development (the *research* branch of this Federal program) and the National Center of Family Planning Services at the Health Services and Mental Health Administration (the *service* arm of the Federal program). Thus, an unprecedented opportunity has been created to make available high quality comprehensive birth planning services to all persons who voluntarily wish medically supervised assistance in planning the number and spacing of their children.

Although the legislation permits us to make "comprehensive voluntary family planning services readily available to all persons desiring such services," it also requires that, in funded projects, there must be satisfactory assurance that "priority will be given . . . to the furnishing of such services to persons from low-income families." While enlarging the magnitude of the population to be served, these two clauses in the Act make it unmistakably clear that comprehensive voluntary family planning services are a "right" to which every American is entitled with special concern expressed for the medically indigent who, all too often, have not previously had access to urgently needed medical care, contraceptive care included. One additional noteworthy clause states that family planning services " . . . shall be voluntary and shall not be a prerequisite to eligibility for or receipt of any other service or assistance from, or to participation in, any other program of the entity or individual that provided such service or information." This caveat is cited chiefly because the success or failure of the Federal program for voluntary family planning is closely tied to the degree to which it is universally understood and honored.

To avoid other possible misunderstandings, let me state clearly that voluntary family planning services are not intended to deal with the Nation's concern about the rate of population growth. While many contend that fluctuating birth and fertility rates impose major strains on our economic and social structures, and while others contend that population growth plays a role in some way in most areas of domestic concern

today—in racial unrest, poverty, urban congestion and suburban sprawl, unemployment, housing shortages and more; permit me to point out that there are other perhaps more important factors to be considered in examining these issues, factors basic to the nature of the entire social and economic fabric of our society. I suggest that it has become almost too easy to look toward reducing population growth as the panacea to our country's problems. It is, indeed, dangerous to our nation to permit this myth to flourish.

But again, this kind of analysis is primarily the work of the demographer and the population specialist. The family planner's work is to provide a basic health service closely tied to infant and maternal morbidity and mortality, and family health and stability.

Of course, the family planner and the demographer do have interests in common: Population patterns are clearly related to the work of both, and voluntary family planning may indeed contribute to a net reduction in population size simply by assisting individuals to reduce the number of unwanted conceptions through fertility controls. But the responsibility of defining universally acceptable population growth rates falls, by definition, on population experts and on a rational national policy, and not on those engaged in making voluntary conception control—a major public health promotion measure—available to all who wish and need it. To try to deal with them interchangeably is among the most serious mistakes anyone can make.

But the burden of helping to change some of the shocking health delivery patterns in this country falls in part to the family planner. This is especially evident in the meager programs that are offered to the poor, the Nation's minorities and their young.

The fact that the U.S. ranks 13th in the world in terms of infant mortality speaks for itself. But there are other facts too. In one city that has been closely studied,* only 26 percent of the female population of reproductive age was poor but it accounted for 56 percent of the live births, 88 percent of out-of-wedlock births, 68 percent of births to women under the age of 19, 72 percent of the stillbirths, 80 percent of maternal deaths and 68 percent of infant deaths.

The study also showed that half of the pregnancies among lower socioeconomic group women culminating in infant or maternal deaths occurred to women who, on the basis of their previous medical histories, were predictably "high risk" persons before they became pregnant, i.e., they had experienced a previous stillbirth or infant death, or their last pregnancy resulted in a premature or out-of-wedlock birth. In contrast, very few of the upper socioeconomic group women studied who had undesirable or catastrophic outcomes of pregnancy had ever had a previous reproductive event which would place them predictably at high risk.

* Beasley, J.D., Frankowski, R.F. and Hawkins, C.M. The Orleans Parish family planning demonstration program. Millbank Memorial Fund Quarterly, Vol. XLVII, No. 3, Part 1, July 1969.

Eight out of ten poor women in the study had their first child before the age of 18; they were five times as likely not to complete their high school education as those who delayed their first child until 18 years of age or older.

Figures such as these attest to the urgent need for voluntary family planning services by which we, at the National Center, mean "the educational, comprehensive medical and social services necessary to enable individuals to freely determine the number and spacing of their pregnancies."

For countless people this provides a way toward greater individual and family health and stability, and often, at least a chance to improve their social and economic conditions.

In addition, for women it can mean perhaps for the first time achieving greater freedom of choice in their lives. For men it can mean gaining an element of control over their future which previously would have been impossible. For children it may mean a real chance to be born wanted and loved into a welcoming world of greater opportunity to make good lives for themselves and others.

Returning, then, to the mandate established by Congress, under the new bill, $382,000,000 has been authorized and I stress authorized as opposed to appropriated for both research and service efforts for three years.

The service portion of the law authorizes: (a) grants to, and contracts with, public or non-profit private agencies for the purpose of establishing and conducting family planning projects: (b) formula grants to State and local health authorities to assist in planning, establishing, coordinating, and evaluating family planning project services; and (c) funding for the support of manpower training, for research to improve the delivery of services, and for the development and dissemination of informational and educational materials.

Project grants are awarded to State and local health departments or to other public or private non-profit organizations, so they can provide family planning services that include informational, educational and patient counseling, as well as comprehensive medical care, including basic physical examination, medical history, laboratory tests, contraceptive supplies, and referral to other health and welfare services. Comprehensive social services critical to the success of these service programs may include transportation and baby-sitting to facilitate patients' ability to reach the facilities which provide the needed services and their understanding and effective use of the available complex contraceptive methods of their choice.

In short, then, this may give you an idea of the current Federal family planning policy, its service programs and some of the historical and legal constraints which form the background against which the NCFPS program developed.

Myriad problems require resolutions if policies governing family plan-

ning are to be consistent. For example, since 1964, the Federal government has authorized and funded family planning services. But there still are conflicting authorizations or practices at the local or service level. It is imperative for workers in the field to know whether and how the existing Federal and State laws are being implemented and if not, why not. It is essential to know, also, what types of problems are encountered by practitioners in the field so appropriate *coping measures* can be forged.

Agency policies in the health, education and welfare fields must be reviewed from the standpoint of staff practices. For example, some women who have had all the children they wish to bear are, nevertheless, eager to enlarge their families via adoption of children. Yet, we have reports that agency workers demand "Proof of Infertility" before they will accept an application from prospective applicants. There are local practices or regulations requiring that family planning information and services be given *only* if a woman has borne one or more children or that she be a certain age or be married, or have her husband's consent.

Questions continually arise with respect to sterilization and abortion. There is a strongly held view that a full range of family planning services must include sterilization services for those who understand what it entails and wish to avail themselves of this form of male or female contraception when they so desire or when it is medically indicated. It is also strongly believed by many, that family planning services must permit abortion as a backup service when there is human or method failure—especially in those states where it is legal. Indeed, many persons point out that if abortion is withheld in the event of an unwanted pregnancy, or if it is denied when indicated and desired by high risk patients, then real birth planning is a myth. As you are well aware, at the present time, abortion is permissible under "liberalized" statutes in seventeen states with many other states actively attempting to modify or repeal their old restrictive laws.* We must remember, nevertheless, that the new family planning services law states that "none of the funds appropriated under this title shall be used in programs where abortion is a *method* of family planning."

Services to Teenagers

It is hardly likely that one can address any group today without having someone inquire about the National Center's "*position*" regarding services to teenagers. I assume this group is particularly interested in this subject. Well, let me give you my views in capsule form. I am impressed by the informed and concerned attitudes that young people display when they come to our offices as students or as interested citizens to inquire about the Center's program. And some of the excellently produced materials that have been prepared by teenagers, especially young college stu-

* Current Status of Abortion Laws, January, 1971. National Center for Family Planning Services.

dents, might interest you. The Center's "policy" governing teenagers exists only insofar as they—teenagers—are viewed as an integral part of American society. Like all other citizens, they have the same basic human rights. Nevertheless, these rights are often denied them, especially if they are poor or minority group members. Unfortunately, in too many communities they can obtain information and medical guidance in relation to sexual behavior and contraception *after* they have had a first pregnancy, in- or out-of-wedlock. This, in my opinion, is punitive and unwise policy—policy, in fact, that is totally unacceptable. Interestingly enough, this is precisely what voluntary family planning is supposed to protect against!

Let me make it unmistakably clear. The National Center does not presume to establish parameters of sexual behavior. It operates a medical program which cannot serve as a substitute for familial or institutional guidance in the arena of sexual behavior. We do know, however, that a sexually active, very young person who becomes pregnant is not only herself placed at high risk; her baby is also exposed to greater-than-average medical risks, and the putative father is often punished far more than we realize. We know further that millions of young Americans are sexually active. The incidence of stillbirths, prematurity and associated perinatal and infant mortality, brain damage and mental retardation is relatively higher in children borne by very young mothers. In 1967, in the United States as a whole, females under 19 years of age accounted for 12% of all fetal deaths under 20 weeks gestation, and for 17% of all stillbirths.*

Unwanted children are more exposed to the possibility of child abuse, neglect, and psychological damage. But in spite of these facts and, in large measure, due to the ambivalence of our society toward sexual behavior, significant proportions of our youth, themselves unshielded and in need of guidance, are compelled to bear children they neither want nor are capable of rearing. Generally, young students are not permitted to experiment in a science laboratory without first having been carefully instructed. Yet, we, as adults, due to our own ambivalence and misconceptions toward sexual behavior, deny our youth the instruction necessary to deal with this remarkably complex and crucial aspect of our lives. It comes, therefore, as no great surprise that out-of-wedlock status (40% of out-of-wedlock births are to teenagers) and the likelihood of dependence upon parents or society is great. To the best of our knowledge, withholding contraceptives has not reduced sexual activity. But it has greatly increased unwanted and dependent families and children.

Laws still are to be found among state statutes which theoretically can be used to invoke sanctions against the provision of sex education

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* Vital Statistics of the United States: 1967, Vol. II, Mortality, Part A. P. 2-4, National Center for Health Statistics, Rockville, Maryland, 1969.

or birth planning guidance. But "while it is possible that a criminal prosecution can be brought against a physician for supplying contraceptives to a minor, we know of no case where such prosecution has been instituted."* I don't think we are about to upset this practice now. But I am convinced that we have a much better chance to teach responsible behavior among people if we, ourselves, behave responsibly toward them.

I hope I have touched on some of the areas of special interest to you.

* Harriett Pilpel, Counsel to Planned Parenthood-World Population.

Douglas Stewart, Director of Community Affairs, Planned Parenthood/World Population, articulately discusses the perceptions and attitudes of minority groups toward governmental programs in general and family planning programs in particular.

MINORITY GROUPS: Their Attitudes and Values as Related to Family Planning Programs

Douglas Stewart

I don't think any institute on family planning and population studies would be complete without some consideration of the perceptions and attitudes of the minority groups in the U.S. You know that there is always a majority viewpoint and then there is a minority viewpoint. Historically in this country, the minority with its concerns has always protected the majority, and all of us for that matter from suppression of civil rights and civil liberties. It is amazing how this phenomenon has helped preserve a democratic way of life. And today I think that same minority has expressed various concerns with regard to the degree of paranoia that permeates our society from time to time is once again helping us to preserve all of our freedoms and all of our civil liberties. Dr. Beckles and Dr. Guttmacher have outlined for you a general overview of some of the things we are attempting to do and the objectives we're trying to achieve. Now you will look more critically at the specific terms of these during the institute. Keep in mind that what the objectives have been since Margaret Sanger started the movement way back around 1914 and 1916, was to make universally available to all women and families who want and need family planning services, a health service and that today we still have that as a major objective, and a major goal in a nation such as ours which is so affluent.

At the present time, we have also a second part of that goal, because again, of a lack of availability of these services, we need a catch-up

program for 5 million plus medically indigent women. It is necessary to attack both problems in isolated cubicles because the problems of each group are separate in terms of developing plans and programs. The purpose then is to make the services available, to make them accessible, to let people know about them. It is fascinating that when I came into Planned Parenthood in 1966 I heard a lot of talk about people not being motivated to control their fertility, but it is very interesting that people usually are not motivated to use non-existent services.

It is necessary then to identify the problem, to clearly understand it, and to clearly state it, to do the necessary research in order to plan and program, to provide any given service in our society, and to establish goals that one wants to achieve, and then it becomes necessary to discuss how to achieve those goals. Part of my job has been working in terms of helping us in Planned Parenthood and others go about achieving the goals that they establish. Now this brings me to another little story that I heard in Kansas City at a program Dr. Beckles and I participated in. That was a statement about what planning is all about. A discussion took place apparently between a cockroach and a grasshopper. It appears that the cockroach could survive under any conditions, could get into cracks and crevices, find food and warmth, and whatever you might want on an unlimited basis. The grasshopper, however, was subjected to seasonal problems and it didn't always survive throughout any given year. The grasshopper took it upon himself to discuss this problem with the cockroach in terms of survival.

He said, "However, Mr. Cockroach, tell me how do I go about changing myself from a grasshopper to a cockroach?"

The cockroach said, "Well, it is a very simple problem. I have analyzed what you have said, and that is turn yourself into a cockroach, change from a grasshopper to a cockroach."

"Well," the grasshopper said, "Well my goodness, I never thought of that."

He said, "However, Mr. Cockroach, tell me how do I go about changing myself from a grasshopper to a cockroach?"

And the cockroach said, "Don't bother me with problems like that, I am a planner, I'm not an implementer."

Now you see, that is where the difficulty comes, and being one who has been down in the arena with the gladiators attempting to fight the lions, I have more than the planning aspects sitting from the stands telling the gladiator down there which way to duck and dodge the lion. It is necessary then for one to be in the arena occasionally to understand that the well laid plans sometimes go astray, when the lion jumps one way and you had planned to jump another way, you might jump right into his jaws. And if you don't understand these aspects of the problem, all the plans in the world will not make a dent into the problems that we have.

Minority groups today then have some concern and have viewpoints

about family planning, abortion, and sterilization. They have some perceptions about these as they relate to them and their concerns and their problems in the environmental context that I want to describe briefly for you. They also have some perceptions about population problems and the proposed solutions that are beginning to emerge today as to dealing with these problems and some of them, interestingly enough, are keenly aware that the discussions around population problems are not new. They went all the way back to Malthus and that Malthus debated these subjects and came up with some of the same solutions that we are coming up with today. The one discussion that no one ever got into was the differences in the like situations of the "haves" and the "have nots." And it is amazing until one solves the differences in the problems between the "haves" and the "have nots", resolutions of problems without violating an impending from civil rights and civil liberties of various people invariably do not come about and it is necessary for us to put those kinds of concerns in perspective.

Minority groups also have concerns about the discussions around environmental problems and the proposed solutions. All one has to do is read what discussions are coming from the Environmental Protection Agency today and you will note that they have no discussion relative to rats and roaches that are permeating the ghettos of our nation today and yet I don't know of any factor that deteriorates an environment more than rats and roaches. There are in some ghettos of this country, rats as big as cats, able to bite a child while he is attempting to sleep. If that is not environmental deterioration I don't know what is.

The other problem in the ghettos is an environmental problem, namely lead paint poisoning which tends to do so much damage to children. Minorities are concerned that in appropriating the monies for various programs the Congress of the U.S. did not consider appropriating any money this year to deal with the critical problem of lead paint poisoning for babies that are already born. I want you to keep in mind that we have a double standard of sensitivities. One does not get emotional about babies that one does not see. If there were a baby lying in front of all of us, dying of lead paint poisoning I think it would touch you very deeply. One has to understand that this is why we do not penalize the pilots that drop bombs on Viet Nam from 40,000 feet in the air, but we do discuss what should happen to Mr. Calley who would shoot one face to face. There is a distinct difference, you see, in terms of humanity.

Ecological problems and proposed solutions are also of concern to minority groups today. The lack of accepting the discussion of sex education in the public schools is of critical concern to our minority groups. It is a majority group phenomena, it is not a minority group phenomena in terms of resisting the teaching of sex education. They feel, understand and know the need for some discussions around human sexuality.

There are winds of intimidation in the United States today regarding family planning and population studies. In Connecticut recently, a bill

was introduced that called for paying a bounty to women to undergo sterilization. A similar bill was introduced in the state legislative body in Delaware paying $500. This is a similar form of coercion, economic coercion; it means if you are poor and you are broke at any given point and you wanted $500 you could get on the table and be sterilized. I think these are rather extreme measures at the present time, but there is some concern on the part of low income people about these values, proposals and it is only when groups like this institute take a critical look at this, will we put these proposals in perspective.

Minority groups are concerned about the U.S. priorities, those of the racism that continues to exist, poverty and some of the existing laws that I have mentioned. In Chicago there was a law calling for the involuntary sterilization of women on welfare. This was a means of controlling and cutting down on welfare costs. The same kind of law was introduced recently into the state legislative body of Tennessee. I think you should be aware that these kinds of things are happening and the concerns of minority groups are expressing are not so much smoke and fury, that they are legitimate, that they are real, and that these are measures designed to limit the civil rights and civil liberties of not only just minority groups and that one has to be concerned as to how far these kinds of things will go. So I am discussing with you the problems that we have in terms of economics, politics, sociologically, psychologically, educationally and physiologically.

Low income people are now looking again at themselves, society, and the community and their role in each. There was a revolution during the 1960s because of the work of the Office of Economic Opportunity, the war on poverty. The low income consumer became more involved and started to critically analyze what was happening to him, and he discovered that a lot of things were beginning to happen to him. He found a proliferation of agencies dealing with various segments of his life. It was conceivable for one family, which had multiple problems, to have eight different people knocking on their door in any one given day.

I ask you only to consider whether or not you would tolerate that kind of thing. You would not even have time to go to bed to have a baby, no less to consider family planning.

Therefore, then, minority groups have not been anti all of us but some of us. The some of us who introduce bills like the Tennessee legislature's calling for involuntary sterilization of all women on welfare. The some of us who introduce similar legislation in other administrative bodies that I mentioned to you. The some of us who introduce into the Congress of the United States the Social Security Amendments of 1967, which said that all babies born after January 1, 1968, would not be eligible for public assistance except through their respective states, and they are keenly aware of what that means, if you happen to be black in Mississippi, Alabama or Georgia. They are concerned as to why those bills

were introduced. They are not anti all of our approaches but some of our approaches for solving problems of population and solving the problems of the provision of Family Planning Services. It is a fact then that there are some in our country who shouldn't be in our work. We don't need some friends. There are some who have ulterior motives about the poor and deprived in our nation. There are some who would create problems for us if we don't denounce them and disassociate ourselves from their viewpoint. It is necessary for one who is positive in their thinking to rise to the occasion, and we don't too often do this. We don't want to rock the boat; we don't want to alienate anybody, and therefore we let a depraved mentality come up with some proposals that are counterproductive to achieve the objectives and goals that we have so plainly stated, and know must be achieved if we all are to survive. It is going to be necessary to look at the problems that you are here to look at. And it is going to be necessary that you also recognize that it is going to require courage on the parts of many people to denounce and disassociate themselves from various and sundry depraved mentalities who have viewpoints that are alien to our society. We then have to develop the ability to win credibility in low income communities if we are to be successful in our efforts to provide a valuable health services to all who need and want these services in our nation.

Let me share with you some of the continuing things that are of concern to black minorities in particular, brown minorities and red minorities. Today, blacks make up close to 11% of the total population in the United States, yet they control less than one-half of one percent of the nation's economic assets. Black families generally earn one-third less than white families. Now I ask you what would you think their priority would be, more birth control services as you know, a daily consideration, or a birth control program that might relate to their earnings and their abilities to use what they earn. Blacks are required as most of you know, and browns, and reds, to pay taxes and also to serve in the armed forces, as are other Americans. Their participation, in fact, is generally greater than the average and blacks in Viet Nam today come to about sixteen percent of the total. Unemployment of black workers usually runs about twice the rate of white workers. Unemployment of black teenagers in urban centers is now 49.9% compared with 18.1% for whites. Infant mortality rate is twice as high among these minority groups. Between 35 to 45 million Americans today are being denied adequate health care.

The nation affords the American Indian a life of expectancy of 43 years while that for whites is 67 years. Poverty is a way of life today for 35 to 45 million of our citizens. Hunger and malnutrition is all they have to look forward to from day to day. I throw these out because this is the context in which we have had those who are minority groups throw out to us that birth control programs being provided are genocidal. Therefore, the concerns and questions of genocide must be dealt with, it can't be pooh-poohed. It has to be faced, it has to be honestly looked at, it

has to be critically evaluated in order for one, I think, to develop a program that is going to be helpful to those individuals who are a little bit suspicious.

Dr. Price Cobb, a black psychiatrist said for any black person today not to be functionally paranoid, is a sick man, because he has been living in a hostile environment for well over 300 years, and if he is not paranoid, it is just a wee bit suspicious. He has to be sick, and therefore you will find that these suspicions are not as we would like to see things, these are the perceptions of the individual who has lived in a hostile environment. Whether or not we think they are rational, or irrational, they *are* held by the individuals and we must be realistic enough to recognize that this is what we must deal with, and we must begin then to develop programs through their eyes. How can you be concerned about my bed habits when you are not concerned about whether or not I have a bed in which to carry those bed habits. How can you be concerned about my bed habits without being concerned whether or not I have a house, a roof over my head in which to carry them on. How can you possibly be concerned about my bed habits without being concerned as to whether or not I have food in my stomach that gives me the strength to engage in all that behavior. I think that you understand that they have some legitimate questions there because I was told by various and sundry women, that it does require strength and some kind of effort to engage in that kind of behavior. Men don't know that much about these kinds of things, we are traditionally ignorant along those lines. There is a concern about the effectiveness of our program compared to others. Now this is very interesting. Planned Parenthood was incredibly efficient in providing its service of birth control for the past fifty years; however a reduction in sickle cell anemia has *never* been achieved in this nation in the same community where we are providing birth control services. Now this is not a criticism of us, it is a criticism of those who should be providing those other services, but when one is so effective and so efficient, and their programs are the only ones that emerge as shining and bright, you begin to be a wee bit suspicious of the motives of individuals, particularly when someone authors a book called, *The Case for Compulsory Birth Control.*

The only immediate visible location of birth location services right now are in low income communities because you don't see any visibly located in suburban parts of our country, or in the outer cities as they are beginning to call it, so you do have to be concerned about what is going on. Relating our program to reducing welfare costs is a negative pecuniary orientation.

Myths concerning the morals of minority groups are many. You know there was a myth that permeated our society for a long time. It was that in a minority group women were mainly promiscuous, prone to going to bed with anyone who offered. That was translated into the program of illegitimacy as it related to minority group girls and a lot of these

things then cross out when we have birth control, shining and bright, in minority communities, as being a way of saying that all we have to do is just give them birth control and we will control their moral behavior, or the products of their immoral behavior.

Practically, on a daily basis, black women, red women, and brown women use family planning services, want them, use them, understand them, and know the benefits of them to their health, both physiologically and psychologically and to them, economically. The problem in the past has been that they were not available. Politically, however, when you are a minority and you start thinking about group behavior and here is where the problem becomes one for all of us. The minority group looks at population in terms of what blacks are today in this regard. Blacks ought to double their population growth in order to obtain political power, and they make that on a very sound, logical, political basis. There are 25 million, now maybe, they ought to go up to 50 million to elect more black congressmen, more black senators, because they don't see any majority group people "chompin' at the bit" to run out and elect any of them. So therefore, they need their own to elect. Sounds logical. Economically, they say that they ought to double their numbers to have consumers of goods and services that they will produce so that they will become black entrepreneurs, because the majority group members are not "chompin' at the bits" to go out and purchase those goods and services I confront them with this dilemma because I agree with the logic of that from a political standpoint, and from an economical standpoint; I have no choice, I was trained in political science, trained in economics, but I also have some awareness of who should bear the burden of doubling their number. When you look at the fertility today of the middle income blacks and browns they are the same as those in the majority groups. They have no more than two or three children and they have them when they want to have them. And so it is amazing that in that kind of suggestion is that the burden of producing this doubling effect would fall heavily on the low income women who are already overburdened with these unwanted pregnancies. That is why I am concerned and that is why you should be concerned, and that is why these problems must be put in proper perspective.

There is a scent of paranoia permeating this land about overpopulation, in terms of social problems exist because of overpopulation. These problems will become multiplied in intensity as the President's Commission said, but when you start to say that the problems we have today are because of overpopulation, credibility again then is challenged. Ignoring the continuing existence of racism, poverty, hunger and malnutrition and beginning to say things like the most critical problem facing mankind today is the problem of overpopulation is to ignore the realities of a person living each and every day because to him the most critical problem if you are a victim of racism is racism. For a woman who is raped, the most critical problem to her is the rape at the time, not sexual fulfillment

in the future, I can assure you of that. If you are a victim of poverty today, the most critical problem facing you is poverty. If you a victim of hunger and malnutrition your most pressing problem at that point is hunger and malnutrition, not whether or not overpopulation is a problem.

Now, finally, let me share with you that as we talk about raising the motivation of levels of people to use many of these services and to do things in their own enlightened self-interest, let us keep in mind that there are various methods to motivate people. The Spanish in days of old had a very interesting and curious way of motivating. They had about 15 men they wanted to move a rock up an incline. That rock was extraordinarily heavy, and the Spanish had a group of troops with weapons standing on the side and those 15 men struggled in vain with that rock but couldn't budge it. They hadn't been properly motivated yet. The Captain of the troops said, "Shoot two of them." It was amazing that 13 men began to budge that rock. He said, "if they don't get it any farther, shoot two more," and they moved that rock all the way up the top of that hill. I hope you don't get to motivating people along that line to use family planning and birth control to achieve the goals that we know must be achieved because we have failed to do something that we should have done. Because birth control is a method of assisting people in their daily lives, as a health measure, and it is one of many means that will be necessary in the long run to deal with this critical problem of population that is far more complicated and far more complex than just controlling fertility. It deals with, as many of you know, the roles that we have prescribed for women in our society, and until we begin to deal with and face that particular problem honestly we are not going to make a dent in controlling fertility. We are always going to be subjected to various and sundry changes in that particular problem.

When we cannot come to grips with the teaching of human sexuality in elementary and high schools, we are not beginning to make a dent and unless we are prepared to start marches on Washington, D.C., to make it so plain that sex education ought to be a legitimate part of a child's education in this country, we have not really begun to deal as sincerely and as honestly and as candidly with such a complicated and complex problem, as crucial as population growth and its implication for the future of this world. And I suggest to you that until we begin to do these kinds of things, anyone talking about dealing with a problem as large as population, credibility is going to be constantly questioned by the minority because they know that we are not being sincere.

We are talking about dealing with the minority because you see you could reduce population down to a zero rate of growth by wiping out the 35 to 45 million poor people anytime one wanted to. And lest you forget, there are instances in history where a nation has gone in and suppressed a revolt in another nation. The only question that usually keeps them from doing some of these things are usually their international

image, and the day we begin to get paranoid enough to feel that overpopulation is too serious a threat to us without dealing in some of the safeguards that come from enlightened attitudes and viewpoints in regard to this problem we are in danger of this kind of paranoia causing us then to bring down on the heads of the powerless in our nation, the forces of intimidation and coercion. I am confident that this will not happen because of groups like you.

George Langmyhr, M.D., Medical Director, Planned Parenthood/World Population, outlines medical conditions which may or may not jeopardise the capability to bear children.

Medical Indications For Family Planning

George Langmyhr

Introduction

Just a few years ago, the subject of medical indications for family planning probably made people think in terms of a lengthy list of reasons for family planning defined in confusing or incomprehensible medical terminology. Indeed, until recently doctors generally defined the need for fertility regulation in a rather restricted fashion. There are many reasons why physicians have broadened their views and strengthened their interest in child spacing and fertility control. One of the most important reasons is the broadening of medical horizons when interpreting the word "health." Health, to use an older definition, meant "the absence of disease." In other words one was dealing with the normality and integrity of physical and mental functions. How far the medical profession has come is best exemplified by looking at the World Health Organization definition of health: "Health is a state of complete physical, mental, social well-being, not merely the absence of disease or infirmity." What an admirable definition and how long it took to develop such an important concept. The World Health Organization definition enables everyone to think of medical indications for family planning in a completely new way. The medical profession should be concerned about the totality of health as it relates to the individual woman, and her children. Moreover, there must be equal concern for the men involved and for the integrity of the family unit. In spite of what has been said about incomprehensible medical terminology, it is useful to have a good medical reference

framework in which to place one's thinking. What follows is a general and special discussion about organic diseases contraindicating pregnancy in relative or absolute terms. Tremendous advances have been made in medical science which have made it possible for many women suffering from certain disease states to carry through pregnancy successfully. Only a few decades ago, without the benefits of modern medicine they would have had either severe disablement or perhaps risked death if they became pregnant. There are specific organic disease states in which pregnancy is medically unwise and contraindicated. Also because of the broadened definition of health, it is fair to state that contraceptive advice may contribute more to the welfare of certain patients than specific medical treatment. For example, 15 or 20 years ago, any patient with rheumatic heart disease would have been specifically advised not to have a further pregnancy, especially if she had developed complications during a previous pregnancy. Certain medical techniques now enable women with moderate or controlled rheumatic heart disease to safely undergo a limited number of additional pregnancies. But for those who are happy with the number of children they have already borne, contraceptive advice may be the single most important aspect of medical advice related to that particular patient's welfare. Furthermore, one should be aware of the modifying circumstances in each of the disease categories. Socioeconomic conditions and other factors must be considered along with each one of the medical indications. For example, if the rheumatic heart patient is a woman living in a ghetto area of a large city and has already undergone 6 or 7 pregnancies, the physician's concern should make 100% effective contraception virtually mandatory. The following discussion relates particularly to high risk patients and may include either absolute or relative indications for fertility control.

(1) Cardiovascular system.

a) Serious heart disease or previous cardiac surgery: This includes women who have moderate or severe heart enlargement, previous heart failure which led to edema or cornoary artery disease.

(b) Hypertension: In this category is placed those patients who have had elevated blood pressures during one or more previous pregnancies which may have progressed to toxemia or eclampsia. Women with a history of hypertension or elevated blood pressure between pregnancies deserve special care.

Summary: Any case of moderate or serious heart disease merits thorough medical surveillance. In serious cardiovascular disease doctors will advise against pregnancy.

(2) Lung disease.

A woman with active tuberculosis usually should delay pregnancy until a cure has been effected. If tuberculosis has been arrested and remains inactive for two years (as determined by x-ray examination and sputum

examination), then a pregnancy could be planned. Pregnancy in a woman with active tuberculosis usually results in a worsening of the disease. Equally important is the fact that new born infants are particularly vulnerable to TB germs and face grave risks if infected by their tubercular mothers.

Some relative indications for fertility control are as follows: previous lung surgery, severe asthma, bronchiectasis, emphysema and any other pulmonary pathology such as silicosis or previous history of spontaneous pneumothorax. Now what are the implications of this list? A woman with any one of these lung diseases who becomes pregnant may have seriously impaired respiratory function during the fifth or sixth month of pregnancy. This is the period when she faces her maximum stress, especially *should there be an attendant lung infection* or some other respiratory complication. The end result may be exposure of the female to severe risks.

(3) Diseases of the endocrine glands.

A moderate or severely diabetic female, especially if she has had the disease for a long time may have arterial damage of the kidneys, heart. These complications of diabetes are not compatible with a normal pregnancy. Women in the reproductive age group may have other diseases of the endocrine glands such as: (1) thyroid disease where the gland may have become overactive or underactive; (2) Cushing's disease which is a disease of the adrenal glands: (3) diseases of the pituitary gland which may be producing various hormone and metabolic effects. These endocrine related diseases are relative risks for the woman and for the unborn child who may be stillborn or face long term disability.

(4) Cancer.

Any cancerous condition, particularly those involving the breasts or the pelvic organs, especially when there has been surgery within the past three years, calls for some decisive medical judgment. Perfect contraception (perhaps sterilization) is mandatory when the disease is not considered controlled or cured. Cancerous conditions should include the systemic diseases such as Hodgkin's Disease and the leukemias.

(5) Kidney and liver disease.

Previous disease which has impaired to a moderate or severe degree the regular and normal function of one or both kidneys imposes a relative or absolute contraindication for further pregnancies. This is also true for previous diseases of the liver such as hepatitis. As with kidney disease, liver disease may impair the ability of the body to eliminate certain electrolytes such as sodium or chloride. This may result in intractable edema, or fluid retention, leading to progressive deterioration.

(6) Diseases of the nervous system.

The following are some examples of absolute indications for fertility regulation (once again including sterilization): Parkinson's disease, multiple sclerosis, severe or badly controlled epilepsy. There are other diseases which produce severe impairment of either central or peripheral nervous function in which contraception is mandatory.

(7) Inherited diseases.

This category is one of the best examples of how strict use of contraception is essential to protect the mother or to prevent the birth of children with severe impairments. In this group are previous mentally retarded children, a previous child with cerebral palsy, blindness or congenital deafness, mongolism, diseases such as pseudo-hypertrophic muscular dystrophy or a condition such as hemophilia. All inherited diseases should be the subject of genetic counseling.

(8) Operative obstetrics.

The following classification is intended to suggest the need for thorough birth control counseling: Women who have had a history of difficult labor (over 24 hours) or a complicated delivery (such as a breach delivery); all women 35 years of age and over who have not experienced their first pregnancy; women who have deformities of their bony pelvis including women who have contracted pelves; women who have had many caesarian sections or those who have had problems such as a ruptured uterus; those who have had a severe postpartum hemorrhage. Women over the age of 40 or those under age 18 certainly belong in a special category and deserve special contraceptive counseling.

The contraceptive implications of these various categories of disease is best summarized as follows: jeopardy to the health of the potential mother or child is a primary and paramount consideration; therefore, it should be the qualification for birth control counseling and the basis for decision.

It is essential to understand the effects of age and parity on obstetrical performance and relate them to modern concepts of child spacing. It is apparent that the efficacy of modern contraceptives has enabled many couples to practice child spacing efficiently. The first child is postponed until couples are emotionally ready to become parents. Couples are spacing their children more effectively so they are having children at desired intervals. The practice of child spacing helps to overcome the most common of maternal syndromes, the tired mother syndrome, where mothers may overcome by too many children which have arrived at too short intervals. This syndrome is especially frequent in low income women. Women who are exposed to the risks of an out-of-wedlock pregnancy deserve special consideration. It is important to remember that out-of-wedlock pregnancy

affects not only minors, but as well women who are separated, divorced or widowed. Any woman exposed to the risk of unwanted pregnancy deserves contraception and should be able to get it with proper medical advice and counseling. The specific effects of parity are well understood. Most obstetricians agree that maternal risk is at its lowest for births two and three. Birth number four carries approximately the same risk as the first. After birth number four the danger increases, at first gradually, and then sharply. A Grady Hospital (Atlanta, Georgia) study of the clinic population showed that for those women who had five or more pregnancies, the mortality rate was greater than the average. However, when the parity was greater than 7, the maternal mortality rate was doubled. Quinlivan in 1964 analyzed maternal mortality data involving women para six or more than 9 published studies involving highly varied geographic areas in the United States. His conclusions were that for women para six or higher the mortality rate was *four times* greater than that of the control group. Incidentally, the perinatal death rate of babies born to these high risk mothers was twice that of the control group of babies of lesser parity.

Returning to the Grady Memorial Hospital study, the investigators also found that the maternal mortality rose significantly after age 30. To quote their findings, "in the 35 to 39 year group the mortality rate was 3½ times greater than the clinic average; for the group 40 years of age and over, the rate was 4½ times greater." Guttmacher studied 348,393 U.S. births occurring in the 10 year period 1951-1961. The maternal mortality for the total sample was 817 per 10,000 births. In the age groups 20 to 29, the maternal mortality rate with one to three births was 5.4 per 10,000 births. For women of the same age group after four or more children, the maternal mortality rate rose to 13.2. In the age group 40 and over, the rate for those women undergoing their first to third birth was 20.0 per 10,000 births compared to 44.1 among women having a 4th or greater birth.

It is recognized that maternal age and parity usually go hand in hand. In other words, a woman having her 8th pregnancy usually is well advanced in her chronological age. Add to the above facts that fetal death or stillbirth is also closely tied to parity. This is shown by the fact that the stillbirth rate is twice as high for 6th births compared to that for first births and three times as high as it was for the second birth. Newcombe, a Canadian pediatrician, studied 5,000 living children registered as handicapped in B.C. and uncovered a strong correlation with maternal age. Malformations of the circulatory system, mongolism mental deficiency, cerebral palsy and psychoneurotic difficulties were associated more frequently with advanced maternal age. The World Health Organization emphasizes this in statistics which show that while women over 35 have only 11 to 14 of every 100 babies born, they have between 51 and 58 of every 100 infants afflicted with mongolism. On the other hand, very young mothers, those less than age 19, have an increased tendency

to bear children with cerebral and spinal defects and injuries and postnatal respiratory difficulties. It should be noted that many workers have observed that increased paternal age also weighs against the chance of healthy normal infants. For example, the stillbirth rate increases with paternal age, as does the incidence of mongolism. Advanced paternal age also increases the risk of congenital malformations independent of the age of the mother.

Finally, at the effect of the time interval between births, in 1964 Bishop showed that prematurity was significantly increased when there was less than 12 months between the conclusions of one pregnancy and the beginning of the next. Further the British Medical Research Council reported in 1959 that the incidence of prematurity, neonatal and infant mortality were all inordinately high in young mothers with high parity, thus a history of brief intervals between conceptions. Dr. Richard L. Day concluded that an interval of approximately 2 years between the end of one pregnancy and the beginning of another is associated with the lowest incidence of perinatal mortality and prematurity. When one considers all the variables, it seems logical and desirable to practice child spacing or limit ultimate family size. In summary, medical indications for family planning are broad and many. They are inextricably tied to the soundly based attempts to preserve the health of mothers, children, and the integrity of family units. Many factors must be considered in modern day birth control counseling. As has been illustrated, maternal and paternal age play strong influences on the successful outcome of any pregnancy. It might be suggested that the ideal time for maternity is between 20 and 30 years of age. A paternal age below 45 yields the best fetal results. With increasing parity, there is not only increased risk for the mother, but increased risk for the potential child. Finally, an interval of approximately 2 years between pregnancies yields optimum fetal results as well as helping to preserve the health of the mother.

AN ADDITION TO MEDICAL INDICATIONS FOR FAMILY PLANNING

Preamble

Teenage pregnancies pose a special problem for physicians. For this reason it is felt appropriate to append the following statistics and observations concerning teenage pregnancies.

1965: 595,000 teenagers gave birth—129,000 out-of-wedlock.

1968: 625,000 teenagers gave birth—146.000 out-of-wedlock.

The percentage of out-of-wedlock births occurring to teenagers is 43% which is the same percentage as has been observed through the 1960's. This compares to 22% for all women age 14–44.

While only 2.1% of out-of-wedlock pregnancies occur in women less than

15 years, when a study is made of mothers who are younger than 15 as a group, one discovers that 88% of their pregnancies have been conceived out-of-wedlock.

The absolute number of teenage marriages has been rising.

Percentage of marriages occurring between two teenagers is increasing: 1949: 33% of all couples marrying were teenagers; by 1959, this had risen to 39% and has remained at this high level.

Pregnancy in teenagers, according to American investigators, leads to an increased incidence of prematurity, disproportion, excessive weight gain, hypertension and especially toxemia. As well, there is a higher incidence of Caesarian section.

Further, attention must be paid to the differences between married and unmarried teenagers. Investigators have concluded that almost all of the complications of pregnancy occur more frequently among the unmarried than among the married women.

A great deal of attention should be paid to the infants born to young mothers, particularly those who are unmarried.

The infant mortality rate is increased.

The prematurity rate is also increased.

Why do physicians worry about prematurity? Surviving premature infants have a markedly increased incidence of both mental subnormality and neurological deficit. For example, when birth weight is 3 pounds or less, the incidence of major neurological deficit and mental subnormality requiring special schooling or institutionalization may run as high as 20%.

What a legacy teenage pregnancies can leave!

David F. Sly, Ph.D. from the Department of Sociology at The Florida State University presents excerpts from a comprehensive study which surveys the population-family planning knowledge, attitudes and practices of faculty in the Florida State University System. Copies of the complete study are available, as long as the supply lasts, from the editor of this book.

The Population-Family Planning Knowledge, Attitudes and Practices of Faculty In The Florida State University System

Introduction

The study reported here was conducted during the summer of 1971 as part of the Family Planning Institute in Florida jointly sponsored by The Department of Health and Rehabilitative Services, The Florida Board of Regents and Planned Parenthood World Population.

One of the major objectives of this institute was to bring together a group of concerned faculty who were experts on population and family planning as they relate to their respective disciplines for the purpose of developing materials and information which would assist other faculty in teaching these topics within different disciplines. As the planning committee began to formulate a program for the summer's activity it became increasingly apparent that little was known about the general level of knowledge about population-family planning among faculty. Moreover, we realized that there would probably be differences in faculty willingness to accept and use the products of the institute depending upon the already existing attitudes and practices of faculty toward these topics. It was principally as a result of the ambiguity surrounding these planning sessions that we undertook this project.

The survey data were gathered primarily for the purposes of assessing the knowledge, attitudes and practices of faculty in general and to help plan for programs which will create a more salient population awareness among faculty in the future. Thus, after a discussion of the sample and the survey a major portion of this report is devoted to a discussion of

the knowledge; attitudes, and practices of faculty toward population-family planning. This discussion leads to the general conclusion that faculty have a low level of knowledge, generally view these issues as important, but devote relatively little time to them. We conclude the report with the suggestion for the development of what we refer to as portable or mobile mini institutes which could be transported to the various universities and colleges for a few days at a time. Such institutes it is suggested should have several curricula which would meet the different needs that our data suggest different groups have.

The Sample

A random sample of 500 names was drawn from a list of faculty members in 11 departments (a list of departments and Universities and Colleges is included in Appendix I) at the various Universities and colleges in the State University System. Departments were selected (after consultation with various members of the Institutes planning committee) which we felt would offer courses in population-family planning or related fields. The departments included appear to have some validity for 92 percent of the faculty members returning questionnaires indicated that they have occasion to present materials related to these topics in their teaching duties. It should be pointed out, however, that there is no way for us to realistically evaluate the extent to which faculty in other departments present similar materials. Therefore, it is possible that while our list of departments meets the criteria selected that it is not totally inclusive of all departments which deal with these subject matters.

Likewise, there are several other shortcomings of our sample and sampling procedure which should be noted. First, no complete list of faculty in the university system was available. The list from which we worked was constructed from the latest available catalogs of the colleges and universities. Therefore the universe excluded any person who was on a department faculty but not included in the catalog. While this may be a statistical drawback to the sample universe, one may properly anticipate that a large proportion of these people are new to the Florida system and therefore have not taught in it before and should be excluded to the extent that they do not represent an input to the system other than during their first year.

Second, there was no way for us to know who taught the relevant courses within each department. That is, ideally, it would have been beneficial to be able to sample the people in each department who are directly responsible for teaching the courses which deal specifically with population-family planning. The fact that such a high proportion of persons indicated that they include material on these topics in their classes is more indicative of the current relevance of these topics and a new realization of the breadth of their importance than of sampling persons who are directly responsible for teaching courses on these subjects.

Thus, the real universe from which the sample was drawn was the

list of names constructed from the various catalogs and it is likely that this list of names did not include all the faculty in the departments of concern nor necessarily the persons most knowledgeable and interested in the topics of concern. While this may appear at first glance as a drawback to the sample, it should be noted that our goal was not to single these persons out but rather to get a general reading of the faculty who were most likely to deal with these topics. Thus, a third potential shortcoming of the sample is the possibility that some departments and for the junior college-university distinction may have been biased through an unequal representation of faculty who are more interested in and knowledgeable of these topics. These two factors are mentioned because as we will see later they were consistent important differentials. It may merely be noted here and discussed in detail later that there are also reasons for expecting these variables (department and junior college-university) to be important.

Demographic Characteristics

The distribution of respondents along several demographic dimensions can be observed in Table I. These demographic dimensions are important for two reasons. First, it is primarily by these dimensions that we will later be analyzing the knowledge, attitudes and practices of our sample, and second it is primarily along these dimensions that we can describe our sample, formulate some expectations about what we should find, and give us some idea about the kinds of populations to which our data are generalizable. Given the first restriction under which we are operating (working with the single occupational class-college instructor) we would ideally like our sample to show a considerable amount of heterogeniety within this class.

For the most part, our sample appears to meet this criteria. The average age of the respondents is 39.2, but they range in age from 27-63. The majority of respondents (56%) are between the ages of 30 and 39; however, it should also be noted that 65 percent of the respondents are 35 and over. The majority of respondents (61%) are male, and while this figure may lead one to suspect that females are underrepresented, they probably are in fact over represented in terms of total university system faculty. Their relatively high representation is a function of the restricted departmental representation of our sample. That is, at least three of the departments (social welfare, nursing, and home economics) on our list are very female oriented professions while a fourth (education) probably has fewer sex barriers than the others. Thus, we are led to believe that our sample relatively accurately reflects the sex composition of the universe of departments from which it was drawn, but there is, as noted above, no way to definitely know this.

The vast majority of respondents (78%) are currently married and living with their spouse, while 26 respondents (9%) report that they have at one time been married, but are not currently married or living with

TABLE I

Demographic Characteristics Describing The Sample

Demographic Characteristic	N	%	
Age:			
<29	22	7.6	
30-34	79	27.3	
35-39	83	28.7	X = 39.2
40-49	51	17.6	
50>	54	18.8	
Sex:			
Male	176	60.9	
Female	113	39.1	
Marital Status:			
Single, never married	37	12.7	
Married, living with spouse	226	78.4	
Married, not with spouse	26	8.9	
Years Married:			
<10	43	19.0	
10-14	47	20.8	
15-19	21	9.3	X = 18.6
20-24	64	28.3	
25>	51	22.6	
Education:			
Bachelor's Degree	43	14.9	
Master's Degree	121	41.9	
Ph. D.	125	43.2	
Age of Spouse:			
<29	22	9.7	
30-34	1	27.0	
35-39	67	29.6	X = 37.1
40-49	45	19.9	
50>	31	13.8	
Does Spouse Work:			
Male respondents:	154		
Yes	61	39.6	
No	93	60.4	
Female respondents:	72		
Yes	67	93.1	
No	5	6.9	

Demographic Characteristic	N	%
Religion		
Protestant	188	65.1
Catholic	21	7.3
Jew	27	9.3
Other	53	18.3
Academic Position:		
Jr. College	104	36.0
University	185	64.0
Instructor	47	25.4
Assistant	54	29.2
Associate	51	27.6
Full	33	17.8
Tenure Status:		
Have	190	65.7
Have not	99	34.3
Academic Department:		
Education	37	12.8
Social Welfare-Nursing	62	21.5
Home Economics-Life	17	5.8
Biological Sciences	61	21.1
Sociology-Urban Planning	72	24.9
Psychology	21	7.3
Economics	19	6.6

their spouse. Of the latter group four report themselves as separated, 7 as divorced and not remarried and 15 as widowed. Only about 13 percent (37) of the respondents report that they have never been married. The never married respondents differ markedly from the general sample in that they are considerably younger (average age = 33.4) and made up disportionately of females (N = 23 or 62%).

The data in the table relating to length of marriage are only for the 226 respondents who were married and living with their spouse at the time the questionnaire was administered. These respondents have been married an average of about 19 years. This figure appears high when contrasted with the average age of the sample (about 39 years); however, the latter figure includes the never married respondents who, as we have just observed, are considerably younger than the population in general. While this might help to explain the relatively high mean length of marriage compared to the mean age of respondents, it does not explain the marked "U" shaped distribution of length of marriage.

To some extent the pattern in the distribution is the result of not presenting the data 1) separately by sex, and 2) for more refined categories; however, it probably reflects to some extent a change in the pattern of age at marriage among respondents.

Nearly 65 percent of the respondents hold positions at one of the Universitites in the State system, and 85 percent of the respondents hold an advanced degree. Of the 125 respondents (43%) holding Ph.D.'s only 6 are in Jr. College positions, thus this category is highly homogeneous in this respect. It should be noted, however, that education is not synonymous with academic position because 25 (or 58%) of those holding only a B.A. or B.S. degrees are in one of the senior universities and 37 (or 31%) of those holding Master's degrees are in one of the senior universities. Thus while a high level of education is predictable of a senior university position, relatively low education is not necessarily predictive of a Jr. College position. In short, we will want to analyze our data separately by level of education and academic position. Over 65 percent of the sample reported that they had tenure.

The eleven academic departments from which the sample was drawn were combined to seven categories in Table I by joining nursing with social welfare and urban planning with sociology. The decision to combine the former was based on the fact that both disciplines are practically oriented and largely concerned with training personnel who will be directly concerned with clients who will use their services, while the remaining disciplines are more academic in nature. The decision to combine urban planning with sociology was the result of their being only two urban planners in the sample and the fact that urban planning appears to have many of its roots in sociology. The various education departments were also combined to form the single category education. With these restrictions in mind we may note that three academic departments each have over 20 percent representation in the sample and that each of the remaining departments contributes between 6 and 13 percent to the sample. Thus, sociology, social welfare and nursing, and biology make the largest single contributions to the sample.

Two other dimensions along which we might expect some differentiation of our respondents are religion and spouses presence in the labor force. The vast majority of respondents (65%) reported one of the protestant denominations as their religious affiliation while only 7 percent and 9 percent respectively reported their religious affiliation as Catholic or Jew. Next to protestant the second largest category of religious affiliation in the Table is "other." All of the respondents in this category referred to their religious affiliation as either "none," "atheist," "agnostic," or "naturalist." Thus, we are greatly restricted (by the homogeneity) by the relatively small number of cases in the religious categories "Catholic" and "Jew." We will see in the following section that there is some evidence to suggest that the religious factor may be important, but we do not extend it into latter parts of the analysis because the number of cases in these significant categories is so small.

A similar situation exist with respect to the employment status of the spouse. This category only becomes meaningful in itself when we control for the sex of the respondent. When this is done, there are only

five female respondents who have a husband who does not work. Thus, this variable is not used in the analysis.

Respondent Knowledge

An assumption frequently made is that those persons who teach in population-family planning related subject areas are experts or knowledgeable about all aspects of the problem. Thus, it is thought that the demographer should know all of the latest contraceptive techniques or that the nurse should know the economic consequences of lowering the mortality rate, or the latest formula to determine the number of medically indigent in the population. This assumption frequently operates latently through administrators arguing that population-family planning courses should be taught in this department or that department, or by some instructor's desire to be relevant pushing him to relate his course to the "population problem," or through some student raising a question about how the material in a class can be related to a particular aspect of the population problem.

The first scale presented in Table II is the family planning scale. This scale was made up of the 8 items listed below and was designed to test the respondent's knowledge of family planning programs to practices, as well as their knowledge of the use and extent of these programs. On this scale it was possible to receive a low score of zero and a high score of 8; the mean score actually achieved was only 3.3. Twenty-seven percent of the respondents were classified as low (with 2 or fewer correct responses) and twenty-eight percent of the respondents were classified as high (with 6 or more correct responses).

1. To obtain an abortion in New York a female must be 21 years of age.
2. Latest available estimates tell us that about 97% of the American married couples physiologically able to conceive employ contraception or birth control at some time during their marriage.
3. Abortion is a highly effective method of contraception.
4. One of the primary goals of most family planning programs is to reduce the number of children that people desire.
5. A primary problem in attempting to dispense family planning information and services to most Americans who want them is the relatively high cost.
6. Couples in lower socio-economic groups use less efficient contraceptive techniques because they are cheaper.
7. The government considers a nonfarm family of four with an income of $5,000 as medically indigent.
8. Less than ⅓ of the counties in the U.S. have subsidized family planning programs.

TABLE II

Percent Distribution and Mean Scores of Respondents on Four Knowledge Scales

Scale[1]	Low[3]	Medium	High	$\bar{X}^2$	N
Family Planning	27.4	44.5	28.1	3.3	289
Sex and Physiology	24.5	40.6	34.9	3.8	289
Pop. Awareness, Int.	35.2	47.7	17.1	2.3	289
Pop. Awareness, U.S.	39.9	43.7	16.4	2.1	289

1. For content of each scale consult the text discussion.
2. The possible range on each of the scales was 0-8, 0-7, 0-5, and 0-5 respectively.
3. The division into low, medium and high categories was arbitrary is discussed in the text.

The second scale presented in the table was designed to test the respondent's knowledge of sexual anatomy and physiology, and it was made up of the seven items listed below.

1. Each spermatogonia produces four sperm.
2. Conception usually takes place in the uterus.
3. A female egg is usually capable of conception during a relatively short period of from 12-24 hours each month.
4. Ovulation occurs approximately 14 days prior to the beginning of the next menstrual period.
5. The probability of a woman conceiving is highest just before, during, and after ovulation.
6. Follicles are hair-like projections in the Fallopian tubes which move the egg through the tubes to the uterus.
7. Sperm are stored in the epididymis and about ¼ of a billion are released during ejaculation.

As can be seen in the Table, it was on this scale that the respondents scored highest achieving a mean score of nearly 4 out of a possible seven. Despite this higher mean score, there was still nearly one-quarter of the respondents in the low end of the distribution with only two or fewer correct responses; however, nearly thirty-five percent of the respondents had six or seven correct responses and were placed on the high end of the distribution.

The last two scales relate to population awareness, and they were designed to test respondent knowledge about the current demographic status of the world and our nation in particular as well as an understanding of basic demographic processes. Each of the scales contained five items as indicated below. In relation to the possible scores and distributions, it is on these scales that the respondents scored lowest. What is perhaps even more surprising is that despite the low showing on these scales the respondents appear to have done slightly better on the interna-

tional population awareness scale than on the U.S. population awareness scale. On each of these scales the "low respondents" had one or no correct responses and the "high respondents" had four or five correct responses. Note in particular the relatively small percent of the respondents to fall in the high category here as compared to the sexual anatomy and physiology scale.

If the scores and distributions on the last two scales are compared to the scores and distributions on the first two scales, and if the scales do indeed measure what they purport to measure, we are led to believe that the respondents know more about the "what" of what to do than they do about the "why" of "why to do it." That is, it would appear that the faculty interviewed have more knowledge about the practical aspects of family planning and sexual and reproductive physiology than they do of the current U.S. and world demographic situation and the dynamics which operate to change that situation.

Knowledge—Conclusions

It appears likely that the sample as a whole has a less than adequate knowledge of the various dimensions of population-family planning studied. This gap seems to be most severe in the areas of U.S. and international population awareness and least severe in relation to sexual anatomy and physiology. Despite what appears to be an obvious gap in knowledge, the potentially more depressing problem could be what we have referred to above as "faulty knowledge." That is, we have presented *indirect* evidence which suggests that respondents perhaps do not know as much about U.S. and international population awareness as they think they do and that they are far more likely to admit not knowing about family planning and sexual anatomy and physiology items than they are to admit knowing or understanding population awareness and dynamics items. There can be little doubt that much more could be gained through further research on this topic perhaps attempting to measure more directly the question which we have attempted to deal with as well as the knowledge actually communicated in the classroom.

It should also be clear from what we have presented above that different groups have varying degrees of knowledge of the dimensions covered in our scales. Thus, in one sense our data strongly suggests that multidisciplinary institutes in which participants can share their knowledge with participants of different disciplines could be most beneficial. On the other hand these data strongly suggest that the participants themselves are not on the average knowledgeable enough as resources to be relied upon. That is, the data strongly suggest that the educators need educating.

If motivation is a key to learning and if understanding of a problem is a key to motivating and legitimating behavior that will solve the problem our sample of faculty is particularly ill prepared. In this sense

it would appear that the most tractable course to follow is to begin with a heavy emphasis upon the teaching of population awareness which would initially (hopefully) increase the motivation of teachers to teach and communicate greater motivation to their clientel and later create greater motivation to increase their knowledge of the practical aspects of population-family planning. If the knowledge of the practical aspects were not already greater than the knowledge of the problem and its dynamics, and if there was not evidence of "false knowledge" being communicated another course might be more justified; however, the low level of knowledge along the awareness dimensions suggests very strongly that they receive immediate attention and even perhaps that most of this effort be directed at those in the more practical disciplines.

Attitudes

Respondents were asked several attitudinal items designed to search out their feelings about the severity of and/or existence of a population problem and what some alternative courses of action might be in dealing with that problem.

The most outstanding characteristic of the attitude statements is the relatively great amount of homogeneity among respondent replies. However, what is surprising given this congruence is the apparent internal contradiction in that respondents tend to agree that the United States has a population problem, but they appear equally strong in their feeling that nothing should be done about it. This observation appears to follow from the discussion of the data presented below.

Nearly eighty percent of the respondents feel that the United States has a serious population problem and it is interesting to note that on this subject all respondents have an opinion. Despite this strong feeling among respondents there is an almost equally strong feeling that the sanctity of the individual couple to determine how many children they think they should have must be protected. This is indicated by the fact that about seventy percent of the respondents said that they agreed that a couple should be allowed to have as many children as they want and think they can afford, and that despite the fact that nearly seventy percent of the respondents feel the United States should adopt an official population policy over eighty-five percent feel that the government should not regulate the number of children a couple can have.

Moreover, respondents tend rather strongly (64%) to feel that even if family planning services were made available to all Americans our population problem could be solved. Thus, the first five attitudinal items appear at first glance to form a contradiction. That is, a sizeable majority of the respondents feel that the United States has a serious population problem, and that the government should do something about it. However, a majority also feel that simply providing family planning services is not enough, and that the individual couple should be allowed to have

all the children they want, and that the government should not attempt to regulate the number of children a couple does have.

In general these data tend to suggest that females are more likely to recognize that the United States has a population problem. Females are also considerably more likely to feel that a couple should *not* have as many children as they want and think they can afford. They are, however, despite these feelings considerably more opposed to the development of a population policy by the federal government, and they are more opposed to the government regulation of fertility than are the males in our sample. Despite this they feel more strongly than males that the making available of family planning services will not solve the problem.

Thus, it appears that much of the contradiction in the data we discussed above is resulting from the responses of females. This in turn may result from females more closely identifying with fertility and methods of fertility control. That is, females may be more opposed to a population policy because they see fertility control as an intricate part of that policy, and the only methods of fertility control with which they are familiar are those which require some sort of constraint of female behavior (these are the more modern and more culturally acceptable).

An equally important topic to be explored in relation to these data are the possible effects of attitudes on teaching population. There are perhaps two items of attitude data which shed the most light directly on this topic. These are the first and the last. If one feels that realization of the problem is a prerequisite to effective and committed teaching they should be particularly pleased at the high response to this fact among our respondents. That 80 percent of the respondents do agree that there is a problem is actually even better than this figure would suggest because not all of the people in our sample are directly responsible for teaching population family planning material. Finally, we can note the tremendously high degree of agreement among respondents that education must be part of an effort to reduce fertility.

Fertility Practices

Respondents were asked what they thought was the ideal number of children for the average American couple to have. These data are contained in Table XI where the ideal number of children has been cross tabulated by the marital status of respondents. About 52 percent of the total sample thought that two children was the ideal while only about 14 percent thought that the average American couple should have four or more children. When the mean number of ideal children is calculated for the total sample we find that the figure obtained (2.21) is just about what is needed for replacement under the current age-sex structure of the U.S. population. The mean number of ideal children among the single respondents (2.59) was higher, however, only eight percent of the single

respondents thought that the average couple should have four or more children. There was a stronger preference for three child families among this group than there was in the total sample.

Faculty and Faculty-student Interaction Practices

An important dimension of learning and development, and a measure of issues of concern to faculty is how often they interact with their colleagues about topics of concern to them. That is one important part of a college or university, it is frequently argued, is the exchange of ideas among peers. Such exchanges it is felt are both a source of information to faculty members and a stimulus for new and creative ideas. Thus, one aspect of faculty practice which we elected to inquire about was the frequency of inter-faculty discussion of population-family planning issues. To this end each respondent was asked, "Do you and your colleagues ever discuss the population problem, family planning, and/or population control?" The possible responses to this question can be found in the footnotes to Table XIII. We have already seen that a sizeable majority of the faculty feel that the U.S. has a serious population problem. On the basis of this information we would expect that these and related issues are frequently topics of conversation among colleagues. This, however, does not particularly appear to be the case.

Less than one-fourth of the respondents indicated that they discussed population-family planning issues with their colleagues at least once a week; however, about forty-two percent of the respondents did indicate that these were issues discussed a couple of times a month. When the data are examined by the academic department of respondents we find that people in sociology-urban planning departments discuss these issues with far greater frequency than do persons in other departments, and that persons in home economics-home and family life and psychology departments are far less likely to discuss these issues than persons in other departments. With the exception of these three categories all others have a modal response of "a couple of times a month." If these issues are indeed viewed by respondents as serious one would probably expect that they would be more frequently discussed than the respondents report that they are.

There is also a wide range of difference in the amount of discussion which takes place among colleagues depending upon whether they are in a junior college or university environment. Nearly sixty percent of the junior college faculty report their frequency of discussion in the last two categories compared to nearly eighty percent of the university faculty who report themselves in the first two categories. One might expect that the relatively low level of faculty interaction on these issues is the result of the age structure of the faculty, and the fact that the vast majority

of respondents are past the age where "revelant issues" are a major concern.

We also included in the survey a series of questions about how faculty felt concerning student access to family planning methods and information and if they had interacted with students about these issues. The four questions asked were:

1. Do you think that family planning information should be a required part of every college students curriculum?
2. Do you think every college student has an individual right to determine whether he/she should use contraceptives?
3. Have you ever had the occasion to give students advice about fertility control of any kind?
4. If a coed asked you how she could obtain an abortion would you (help her, not help her)?

Despite the relatively strong agreement among respondents that this type of information should be made available to students a sizeable majority of respondents feel that students do not have an individual right to determine whether or not they should use contraceptives. Thus, it would appear that while a majority of respondents feel family planning information should be taught to every college student, they also feel that the purpose of disseminating this information is not to aid the student in deciding whether they should immediately engage in intercourse. In fact, when respondents were asked why they answered this question the way they did over 85 percent of those who gave negative replies said in-one-way-or-another that they did not think unmarried students should engage in premarital intercourse.

Respondents were also asked if they had ever given fertility control advice of any kind to students. The vast majority (93%) said that they had never interacted with students on this topic.

Concluding Remarks

We have attempted in the main body of this paper to only present the data we collected and to refrain from interpreting that data. Now that the reader has had the opportunity to see and hopefully reflect some on it, we feel that it is appropriate for us to offer our interpretation. Our remarks will be made in terms of the findings, but the reader is asked that they be evaluated bearing in mind the restrictions and limitations of the sample, the problems of reliability and validity of the measures employed, and the fact that the sample size did not permit the extended multivariate analysis we would have liked to perform. We will confine our comments to a discussion of what we refer to as the "mobile mini institute"—a mechanism to increase faculty population education awareness.

The knowledge data we have presented suggest rather strongly that if faculty are to be expected "in general" to interact with students along the four dimensions analyzed that knowledge must be up-graded. This appears to be less needed along the dimensions of sexual anatomy and physiology, and family planning; and most needed in the areas we have referred to as population awareness—population-population-social processes and their consequences.

Given what appears to be a relatively high level of motivation to deal with these topics and the *possibility* of faculty communicating what we have referred to as "faulty knowledge" there is little doubt in the benefit that could be derived from institutes which would focus their attention upon population processes and their relationship to the social environment. Educational institutes such as these would be most beneficial if they drew their participants from education, social welfare, nursing, home economics, home and family life, biology, psychology departments. Likewise, *institutes to develop materials and educational aids* in these areas would do well to draw their participants from sociology, urban planning and economics departments. Such "material development institutes" should perhaps focus their attention upon the development of materials designed for use in specific courses and requiring only a few hours to present.

With respect to "educational institutes" it would appear that they should either not be operated under the multiplier effect assumption or that specific mechanisms be developed to facilitate faculty discussion. That is, institutes which are planned to reach a relatively small number of people from different departments in different universities under the assumption that they will return to their local departments and institutions to educate and motivate their colleagues are probably not too effective because our data indicate that the amount of faculty interaction on such topics as population-family planning is very low. Accordingly, there may be benefits in the development of a "mobile educational institute" which could be taken to the various departments at universities and junior colleges for one or two mini sessions in population awareness. Not only could a larger number of faculty be reached through such an innovation, but exposure of the group rather than an individual from the group could help to motivate a sustained interest.

The "mobile mini institute" approach would also reduce the arbitrary problem of selecting participants for the institute.

Our data also suggest that the needs of junior college and university faculty are not identical and that the needs of faculty are probably different depending upon the type of department with which they are affiliated. For instance, the data suggest that university faculty are much more research oriented; whereas, junior college faculty are much more action group oriented. Mobile mini institutes could be designed to better facilitate the needs of both groups by making them more homogeneous in content and relating them to the types of needs of the participants.

QUESTIONNAIRE

PART I

1. Month and year of birth: _____
2. Circle your sex: M F
3. Martial Status
   ____A. Single, never married
   ____B. Married, living with spouse
   ____C. Separated
   ____D. Divorced, and not remarried
   ____E. Divorced, and remarried
   ____F. Widowed, and not remarried
   ____G. Widowed, and remarried
4. Month and year of first marriage: _____
   If married more than once, please indicate month and year of each successive marriage:
   1._____ 2._____
   3._____ 4._____
5. What is your religion: _____.
6. Month and year of spouse's birth: _____.
7. Does your spouse presently work: _____
   If no, skip to 9.
8. What is her / his occupation: _____.
9. Has your spouse ever worked: _____.
   What year and for what reason was this terminated:
   _____
   _____.
10. What is the ideal number of children for the average American couple to have:_____.
11. How many children have you and your spouse(s) had:
    _____.
12. During what month and year was each born:
    1._____ 4._____ 7._____
    2._____ 5._____ 8._____
    3._____ 6._____ 9._____
13. Were your children planned; that is, did you (or have you) had them approximately when you wanted them:
    _____.
14. Are you planning on having any more children:_____
    If yes, how many: _____.
    If no, skip to 15.
    A. Are you doing anything to regulate when these children will be born: _____
    B. If yes, please indicate what you are doing: _____
       _____.

15. Are you and your spouse still able to conceive children?

A. If no, why _____

_____

B. If yes, what are you doing to prevent this _____

_____

_____

PART II

1. What is the highest degree you have earned:
   ____A. Bachelor's or equivalent
   ____B. Master's or equivalent
   ____C. Ph. D. or equivalent
2. What is your academic position:
   ____A. Junior college instructor
   ____B. Instructor at university
   ____C. Assistant professor
   ____D. Associate professor
   ____E. Full professor
3. Do you have tenure: _____
4. Since you entered graduate school, what states have you lived in and during which years did you live there?

State	*Years*

5. In what academic department is your present appointment? If more than one, stipulate the one in which you consider to be the most closely identified with: _____

_____

6. Please indicate the courses which you teach and whether they are primarily for freshmen, sophomores, juniors, seniors or graduate students:

Course Title	Frosh.	Sophs.	Jrs.	Srs.	Grads.
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					

7. Do you present any material on population and/or family planning and population control into any of these classes:
   A. If yes, use numbers to indicate which ____, ____, ____, ____, ____, ____.
   B. On the average about how many hours do you devote to these topics in each class:
      1. ____; 2. ____; 3. ____; 4. ____; 5. ____; 6. ____.
8. Are there any courses other than those mentioned in 7 in which such materials could be used: _____ A. If yes, use numbers to indicate which: _____
   _____.
9. Have you ever had the occasion to give students advice about fertility control of any kind: _____.
10. If a coed asked you how she could obtain an abortion would you:
    ____A. not help her
    ____B. send her to someone else who could
    ____C. know specifically where she could get it and tell her
11. Do you and your colleagues ever discuss the population problem, family planning, and/or population control?
    ____A. Yes, at least once a week
    ____B. Yes, a couple of times a month
    ____C. Yes, once in-a-while
    ____D. No
12. Are you currently engaged in any research related to population and family planning: _____.
    If no, do you have any such research planned: _____.
13. Are you engaged in any off-campus activity or action groups which discuss the population problem, family planning, and population control: _____.
14. Do you think that family planning information should be a required part of every college student's curriculum? _____
    _____
15. Do you think that every college student has an individual right to determine whether he/she should use contraceptives
    A. If yes, why _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____

B. If no, why _____

_____

_____

_____

_____

_____

_____

PART III

For each of the questions listed below mark a *1* in the blank *if the question is true,* and *2 if the question is false,* and a *3 if you are not sure.* Please DO NOT GUESS, and do not consult any references.

___ 1. The rapid rate of population growth in the world today has resulted primarily from rising fertility rates.
___ 2. The U.S. birth rate has been declining steadily since about 1960.
___ 3. Most countries of the world have an official population policy.
___ 4. A country which has a 2-2½ percent annual increase in population is thought to be growing at a relatively slow rate.
___ 5. Black Americans tend to desire relatively smaller families than do white Americans of comparable socio-economic status.
___ 6. The U.S. has one of the five lowest infant mortality rates in the world.
___ 7. To obtain an abortion in New York a female must be 21 years of age.
___ 8. In at least ½ of the states of the United States, at least ½ of the population lives in metropolitan areas.
___ 9. During the past decade the migration rate *from* the North East was higher than the migration rate *from* the South East.
___10. The U.S. population is growing older while the population of most underdeveloped countries is growing younger.
___11. Latest available estimates tell us that about 97% of the American married couples physiologically able to conceive employ contraception or birth control at some time during their marriage.
___12. The current world population is estimated to be about 5½ billion.
___13. Each spermatogonia produces four sperm.
___14. Conception usually takes place in the uterus.
___15. A female egg is usually capable of conception during a relatively short period of from 12-24 hours each month.
___16. Ovulation occurs approximately 14 days prior to the beginning of the next menstrual period.
___17. The probability of a woman conceiving is highest just before, during, and after ovulation.
___18. Follicles are hair-like projections in the Fallopian tubes which move the egg through the tubes to the uterus.

___19. Sperm are stored in the epididymis and about ¼ of a billion are released during ejaculation.
___20. Abortion is a highly effective method of contraception.
___21. One of the primary goals of most family planning programs is to reduce the number of children that people desire.
___22. A primary problem in attempting to dispense family planning information and services to most Americans who want them is the relatively high cost.
___23. Couples in lower socio-economic groups use less efficient contraceptive techniques because they are cheaper.
___24. The government considers a nonfarm family of four with an income of $5,000 as medically indigent.
___25. Less than ⅓ of the counties in the U.S. have subsidized family planning programs.
___26. Not counting food, the 6% of the world's population living in the U.S. consumes about 40 percent of the worlds raw materials produced each year.
___27. The breeder reactors used in todays atomic power plants are more efficient than the burner reactors used just a few years ago.
___28. It takes about 20 tons of raw materials to support one individual in our society.

PART IV

Check the item which most closely reflects your position.

1. The United States has a serious population problem. ___1. strongly agree, ___2. agree, ___3. disagree, ___4. strongly disagree, ___5. no opinion.
2. A couple should be allowed to have as many children as they want and think they can afford. ___1. strongly agree, ___2. agree, ___3. disagree, ___4. strongly disagree, ___5. no opinion.
3. The United States should develop an official population policy. ___1. strongly agree, ___2. agree, ___3. disagree, ___4. strongly disagree, ___5. no opinion.
4. If family planning services were made available to all Americans our population problem could be solved. ___1. strongly agree, ___2. agree, ___3. disagree, ___4. strongly disagree, ___5. no opinion.
5. The only way to effectively curb growth is for the government to regulate the number of children people can have. ___1. strongly agree, ___2. agree, ___3. disagree, ___4. strongly disagree, ___5. no opinion.
6. A comprehensive effort to reduce fertility must include population education. ___1. strongly agree, ___2. agree, ___3. disagree, ___4. strongly disagree, ___5. no opinion.

Marie E. Cowart, Florida State University School of Nursing, and Evelyn Redding, Florida A&M University Nursing Education, call for an extended role for the nurse in family planning services.

A Position Statement: The Nurse In Family Planning

Marie E. Cowart and Evelyn Redding

"Time," said St. Augustine, "is a three-fold present: the present as we experience it, the past as a present memory, and the future as a present expectation." (Bell, 1967) By that intention, the future role of the nurse in family planning has already arrived, for in the decisions we make now, in the way we design our present role and thus sketch the lines of constraints, the future is committed. It is the premise of this position paper to describe the present functions of the nurse in family planning, to anticipate future functions, and to begin to suggest alternative routes to these anticipated roles.

Until the early 1960's nurses had watched women forfeit their right to health through multiple births and miscarriages. During the early 1900's, the nurse's role in family planning was typified by Margaret Sanger's classic experience of not being able to recommend a reliable method of birth control to Mrs. Sachs. At that time, the nurse had no really acceptable and reliable method to recommend to her patients. With the introduction of coitus independent methods of birth control in the early 1960's a new area opened up through which knowledgeable persons could help individuals plan the number of children in their family in an acceptable manner.

Current Roles

Historically, every new invention has generated new responsibilities. The large numbers of persons desiring new contraceptives and the growing

physician shortage led to questions concerning who is to be this knowledgeable person in the practice of contraception. Nurses and physicians are the original members of a health team which has expanded to include numerous disciplines. Keane (1970) separates the practice of medicine and nursing by stating that the physician with his educational grounding in the natural sciences, is concerned with illness transformation, i.e., pathology, for which, after diagnosis, he provides medical treatment. Whereas the practice of nursing is concerned with sustaining a person who has to cope with a situation concerned with normal health or assisting in a return to normal health. Family planning is seen as a decision making task for individuals who wish to either prevent or postpone pregnancy. Therefore, this normal life adjustment falls within the realm of nursing.

The nurse's function is based on her educational preparation in the behavioral and physical sciences, which leads her to look at patients in terms of health and in a holistic manner. Health is defined as "wellbeing in a positive sense" or "an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable." (Dunn, 1961). In essence, the nurse assists individuals to cope with normal development and crisis situations in a manner that promotes further growth.

According to Lesnick and Anderson (1957), the nurse has the following functions for which she is legally responsible: 1) teaching, 2) health supervision, 3) observation, 4) recording or reporting, 5) ministering, 6) delegating with supervision and 7) following physician's orders. The first six are independent on functions, while only the last is totally dependent on the physician. At the recent Florida Nurses Association Convention, Miss Jessie Scott, Assistant Surgeon General (1971), clarified the delegated role of the nurse in this way: "In the past nurses were delegated specific tasks, whereas now the trend is to delegate broad functions."

Traditional Roles

The potential role of the nurse in family planning described in this article calls for more autonomous behavior than that to which the traditional nurse has been accustomed. Stereotypically the nurse is considered the physician's servant or handmaiden. Cleland (1971) states that the most pervasive problem faced by nursing is sex discrimination. Traditionally, the profession of nursing has been associated with females although male students are currently being actively recruited.

The practice so common within nursing of turning to male administrative authority for direction is possibly a result of the socialization process of girls. Mead (1967) offers the hypothesis that differences in mentality between men and women can be attributed largely to differences in socialization; the female proceeding by direct identification with the nurturing parent and the male by differentiation with the nurturing parent.

Hospital administrators usually exert tremendous power over the primary department in their domain, nursing service. Keane (1971) found that a majority of the nurses attending a workshop on maternal and child health thought that the boundaries of nursing practice were defined more by the administration than by nurses themselves. Mead (1967) suggests that we need to work out better ways of drawing on feminine constructive creativity. Perhaps this creativity can be used to transform current nurse practice committees composed of administrators and physicians into policy-setting committees composed of nurses. Two other factors influencing an increasing thrust on nursing practice by nurses themselves are 1) more nursing preparation taking place in educational institutions rather than hospital diploma programs and 2) more nurses practicing outside of the hospital in the community (increased from 20 to 50 percent in the last ten years).

Large numbers of already practicing nurses reared according to long held conventions, need to be molded into independent health workers. Lysaught (1970) reports that the female occupational field with the highest percent of females is nursing. Currently, the employing institutions have inbred expectations for dependency from the newly employed registered nurses. The person who functions in a creative and independent manner is likely to be the nurse who quickly exits the field, leaving behind the submissive and dependent personalities to propagate the stereotype of the "nurse." Nursing cannot afford to promulgate this dependent character trait in its practitioners and waste the talents of already prepared persons.

Patient Population Served

The policy statement on family planning of the American Nurses Association, approved by the Board of Directors on September 29, 1966, focuses on the responsibilities of nurses to "insure fulfillment of the rights and needs of individuals and families to have knowledge and resources for family planning available to them." Nursing has traditionally placed a tremendous amount of emphasis on the maintenance of the individual's right to human dignity.

Nurses have always felt their practice is not directed to any one segment of the population, but rather to the welfare of all patients and families (Nightingale, 1860). This rationale directs the nurse to focus attention on the dignity and integrity of the individual at the particular point in time of their interaction. It enables the nurse to observe and assess needs of the particular person rather than meeting her own needs or quotas set by her employer. The current administrative emphasis on family planning in "large numbers" is thereby balanced by the nurse's respect for the individual's own decision making process.

Nurses violate the individual's right to decision making only in the event of a direct threat to life or when the person's decision making

capabilities are clouded. Herein may be a future issue, as nurses aware of the population crisis must decide whether they take part in population limitation by other than individual choice. Just as nurses have made decisions about their participation in euthanasia based on providing for the welfare of their patients, so nurses will soon need to resolve the issue of population limitation by coercion or by individual choice. In this case they may look to legislative guides, as is done in directing patient care according to the public health communicable disease laws. As another alternative, nurses may emphasize the optimal health of communities rather than individuals or families as their primary unit of service.

In the delivery of services the nurse is not limited to those people who come to her, but she actively engages in casefinding. This has no boundaries. Casefinding may be the result of the nurse's perceptive observations of the hospital visitor. She may note that the newly diagnosed heart or diabetic patient is expressing a readiness for learning about adjustments needed in his life due to his newly diagnosed disease. Thus, he may exhibit a need for education and/or technical assistance in family planning.

Based on tailoring care to the individual, the nurse has a broad field in which to incorporate family planning into total patient and family care for health promotion. She is not limited to one setting but may initiate family planning in clinics for that specific purpose or in clinics for total health care. The nurse by her presence in the hospital at a time of crisis and because of the time span she spends with her patient, is uniquely prepared to provide family planning information and counseling. For example, a man with prostatitis could express concerns receptive to counseling related to his sexual activities. The patient diagnosed with a long term condition such as multiple sclerosis or Hodgkins disease would consider planning of his family, now and future, as one portion of his social adjustment to illness.

Throughout the nine months of perinatal care, particularly the labor and immediate post-partum period when the patient is most receptive to instruction concerning childbearing (Milstone, 1971) the nurse is again in an optimal position to provide family planning services.

Through health appraisal and assessment of patient's physical, social, and psychological needs the nurse determines if there is a need or interest in family planning. Orlando (1961) states that a need is not a need until it is perceived as such by the patient. Therefore, the nurse utilized individual approaches that are meaningful for her patient and verifies with the client her particular interest in family planning. This might mean "spacing" to allow time for nothering the infant, or it might mean lessening the fear of pregnancy, or improving the family's economic opportunities. She begins with the aspect of the topic which has the most meaning for the patient before proceeding on to an all inclusive range of information about contraception or family planning which would

fall on deaf ears. Thus, the nurse truly "knows her student" and "begins where the learner is" according to sound educational theory.

This sound assessment and verification base provides a background for health counseling which spans the range of health with the inclusion of comprehensive family planning services. An example of this counseling was seen by the author while on a site visit to Grady Hospital in Atlanta, Georgia. The Family Planning Nurse Clinician first conducts an intake interview during which a total assessment of needs is compiled. She proceeded to counsel in areas of infertility, human sexuality, adoption, contraception, abortion, sterilization, communicable diseases or fears about cancer as indicated by the patient. Her counseling was directed to assisting people to see alternatives so that they might proceed to cope with their present situation or with future similar situations. And when it was indicated, she referred the patient or family to agencies or other disciplines to provide special services. With the current emphasis on preventive medicine, the nurse practitioner will probably experience even a greater demand for her services in anticipatory health guidance.

In addition to individual services, the nurse is prepared to work with groups of patients. She initiates the group process and brings out shared concerns for discussion and then offers information which clarifies misconceptions. This method of teaching is currently used successfully in follow-up sessions for clients who have already received family planning services.

The nurse's expertise in the principles of family planning qualify her for a consultation role for other persons interested in preventive health and health promotion. Thus, the public school teacher faced with a range of health subjects to teach and with little indepth knowledge about them, frequently calls on the nurse to teach her content related to family planning. However, we feel it is ideal for the teacher, who knows her pupils and their level of learning best, to infuse Family Planning content over an extended period of time with her students. Less effectively, the nurse has traditionally been a guest speaker paraded before pupils to provide one short hour of Family Planning information. The nurse can best be utilized as a consultant to the teacher helping with content material rather than in direct student instruction.

Extended Role of the Nurse

One of the most recent concerns within the health professions is where does the role of the nurse in Family Planning end and where does the physician's begin. Fifty years ago the same questions were asked as nurses took over the physician's task of measuring bloodpressures.

Due to increasing specialization in clinical areas and a broadening definition of health care, the role of the nurse has expanded from being primarily curative to an enlarging preventive focus. When assuming responsibility for primary care in family planning the nurse should not maintain a totally independent practice but an interdependent one. Recently, Lysaught's *Abstract for Action* (1970) has clarified the inter-

relatedness of nurse and physician in the care of the patient. With extended responsibility for health, nurses are responsible not only for recognizing when to call the physician for consultation and care, but collaborative planning of continued patient care. Thus, the nurse practicing in a family planning capacity will need to consult with the physician as needed on a peer basis.

Currently it is the practice in the State of Florida for certified Nurse Midwives to take the leadership in managing contraception. This includes insertion of interuterine devices and prescribing and altering dosages of birth control pills. Complete physical examinations are also done by the nurse midwife. Yet the basic differentiation between medicine and nursing remains in this form of practice. The nurse cares for the normal patient whereas the patient with abnormal history or presenting symptoms indicating pathology is referred to the physician. Continuous collaborative consultation proceeds regarding the midwife's caseload. The educational preparation for the Family Planning Nurse-Midwife Practitioner is a six to nine month certificate course in midwifery and three months of family planning preparation after the Baccalaureate Degree leading to the R.N. license.

Where the specially prepared Nurse Midwife is not available nurses are being trained under the close supervision of physicians in physical diagnosis, pap smear collection, and other organism slides, and in some instances IUD insertion and teaching the patient how to do follow-up "string checks." In this situation the MD usually conducts the physical exam with the nurse the first time the client is seen and the nurse is responsible for patient follow-up at three, six or twelve month intervals. At this time, the number of R.N.'s prepared in these "extended roles" of physical diagnosis, IUD insertion and in-depth counseling are limited. When the nurse is not able to provide the information or care directly, she refers the patient to a colleague physician, or to another agency, just as for other specialized services.

The limited number of nurses prepared to participate in family planning in a practitioner role stems from two reasons. Nursing is currently developing many levels of nurses. Besides the practical nurse with one year training, there are associate degree R.N.s from junior or community colleges, baccalaureate or university prepared R.N.s and advanced master degree R.N. clinicians. A majority of the R.N.s in practice received their preparation in three-year hospital programs. These nurses are limited in their ability to practice outside of a hospital. They are not prepared to care for the patient and family in the community or in the preventive care area. The nurses who are best prepared to move into this extended role are those nurses with university undergraduate or graduate preparation.

When the prescriptive aspects of family planning are considered, the literature indicates some disagreement as to the adequacy of the nurse's preparation. Cuthbert (1961) found that very few medical or nursing

schools include material that went beyond basic anatomy and physiology of the reproductive system. Concurrently, McCreary-Juhasz (1968) found that knowledge of the physiologic aspects of sexuality was inadequate for all groups of nursing students and graduate nurses studied. Houser, Edmands, and Elliot (1969) found that 85.5 percent of the 1,046 basic schools of nursing responding to their questionnaire indicated that they were including some aspect of fertility regulation in their curriculum. There was recognition that responsibilities of nurses in family planning were ill-defined and needed clarification in order to plan teaching content. Carter (1966) utilizing a smaller sample also found that nursing educators were experiencing some confusion about the nurse's role in family planning. Consequently, a majority of the nurses in current family planning practice have had to acquire their preparation while "on the job." This explains the broad diversification of nursing functions found in current practice.

Adequate preparation to become a Family Planning Nurse Practitioner is only available on a graduate education level. With passage of the Family Planning Services and Population Research Act of 1970, finanical support should become available for increased research regarding ways to infuse family planning information into undergraduate curricula, and to increase the number of programs offering graduate preparation in family planning.

Cherescavish (1971) and Brown (1971) call for a complete revamping of the health care system with nursing defined as an interdependent health care specialty. But the present curriculums in schools of nursing do not prepare the nurse to function adequately in an interdependent capacity much as the curricula of medical schools and social work for the most part operate autonomously. The nurse receives limited instruction and practice in the principles of leadership. Rarely is she allowed to function in a truly interdependent capacity as a student. Typically, she is totally responsible for the nursing care of one or several patients with limited consultation with other practitioners.

Nurses are prepared to participate in Family Planning Program planning and evaluation. Evaluation is an ongoing function of nursing, both with the individual patient and in interval program analysis. Most baccalaureate nursing curriculums prepare the nurse to effectively evaluate the needs of individuals while graduate level practitioners initiate change in service delivery as a result of program evaluation.

Most research in the area of family planning has dealt with the physiological effects of medications of the KAP (knowledge, attitude, and practice) type of study. There is a dearth of research in the actual practitioner-patient interaction. This area of needed research could be conducted most advantageously by the nurse present in the situation, but the number of nurse practitioners adequately prepared are limited in number. As growing numbers of nurses are prepared at the graduate level with strong research orientations, this need will be met in the

future by nurses rather than sociologists or related disciplines. Already a trend in nursing research has strengthened in the past ten years.

Conclusion

Nurses, administrators, and physicians all tend to limit the nurse in achievement of her potential role in family planning. There exists a crying need within the profession of nursing to examine the wide variety of nursing activities and define standards for nursing as a health care specialty. With this boundary setting accomplished the establishment of a clear legal framework for practice in family planning could become a reality. One step toward legalization of an extended nursing role has been the enactment of physician's assistant laws. However, the physician's assistant is an indentured servant of the physician, not a nurse, and a nurse working under this title relinquishes her right to practice the independent functions of the profession of nursing. The ANA and American Academy of Pediatrics Joint Statement on Practice defining the Pediatric Nurse Specialist is a more constructive step toward delegation of extended nursing function.

The nursing profession has recently challenged the traditional view that all nurses should be responsible for all functions of patient care and be knowledgeable of all disease entities. The resulting growth of clinical specialists in nursing has been heartening, although the area of family planning still requires increasing numbers of well prepared persons. The public must be prepared to accept this expanded role for the nurse although the few currently practicing clinical specialists have been well received because of their understanding of peoples' needs and their ability to take the time to deal with them.

With the current declining birth rate in the United States, perhaps family planning will center more on "timing" rather than "limitation or "control" as had been predicted for the coming decades. If so the nurse's role in counseling, teaching and delivery of family planning services will be in even more demand in the near future.

First rate clinicians are needed to fill the gap between the technical nurse and the busy specialist physician. The role of the nurse in family planning is not an overarching look into the distance, it begins in the present.

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Mr. Stephen Viederman of the Population Council is one of the worlds most knowledgeable experts in the field of population education. In the following report he accurately describes the state of the field in population education in the United States.

Population Education In The United States:

Stephen Viederman

A Preliminary Report to the Commission on Population Growth And the American Future May 27, 1971

A number of those who have appeared before the Commission have urged consideration of population education through various agencies of the society, including and especially the schools. Before discussing what population education is and might be it is important to keep in mind that recommending an education program in response to the identification of a national problem is a uniquely American phenomenon dating back at least to the early years of this century and the influence of John Dewey.

Consider the programs that educators are now being urged to include—or have recently included—in the school curriculum: urban studies, black studies, area studies (now sometimes referred to as intercultural studies to include problems of blacks and other minority groups in the United States), drug education, driver education, sex education, family life education, environmental education, and now population education. Each of these proposed programs has its own history, its own body of adherents. It is easy to argue that each should be—must be—in the curriculum if we agreed with Whitehead that "there is only one subject matter for education, and that is Life in all of its manifestations." But the length of the list (which could be expanded even further—health education, nutrition education) by its very nature makes it difficult for educators to decide what to do and how to do it, short of revamping

the entire educational system. Thus, if we are not farther along than we are in the development of population education, it is well to remember the setting and its problems.

What is population education?

Population education may be defined as the transmission of knowledge about and methods of analyzing population change and the consequences of that change for the individual and for the society. It is a process of education whereby the student learns that individual acts, such as having children or moving from one place to another, have demographic consequences. These in turn have implications—both social and biological—for the family and for the society as a whole, implications which affect the individual thereby completing the circle.

Population education, as defined here, is concerned primarily with programs in the formal school system, and especially the elementary and secondary school. The definition recognizes that time spent in the formal classroom or in school-related activities is only part of the educational process. Educators must, therefore, consider the nature and context of the students' non-formal education about population, planning school programs accordingly.

The goal of population education is to get concepts and materials related to population into the formal school curriculum in order to educate the next generation, to assist them to make individual and collective decisions about population matters utilizing appropriate information and analytic skills. For the family the goal can be stated as responsible fertility behavior, for the community, as responsible decisions on population and public policy.

Population education programs may include concepts and subjects now taught in many different disciplines, such as biology, geography, history, family life and sex education, sociology and demography. But because it is phenomenon-oriented or problem-oriented rather than discipline-oriented it is misleading to think of population education belonging more or less to any of these fields. Rather than the random sampling of knowledge that characterizes much of discipline-oriented study, population education requires a statement of precise objectives that provides a set of criteria on which to decide what knowledge and skills will be drawn from which discipline in order to most clearly elucidate the population phenomena.

Population education is meant to educate, not to propagandize or indoctrinate. Population education views population less as a "problem" to be solved, than as a "phenomenon" to be understood. This understanding will ideally enable the students to perceive when and if the United States has "population problems," what the nature and magnitude of the problems might be, and what governmental policies and individual actions might be necessary in order to deal with them. Population education, as suggested earlier, encourages the individual to view himself within

the context of a broad range of familial and societal relationships which his actions and his life style affect and are affected by.

Having gone this far in "defining" the field, a few flags of caution must be raised. It was less than 10 years ago that Phillip Hauser, writing in the *Teachers College Record,* first identified population as an area that should be of interest and concern to educators. Thus the history of the idea of "population education" is short. And, needless to say, one article does not create a mass movement—the Hauser one is no exception. It is only in the last two or three years that serious attention on any scale has been paid to the problem of population education in the United States. The number of persons working in the field is small—perhaps no more than 25 full time equivalents for the whole country. The number of universities delineating and developing the idea number less than a half dozen. And it was not until this month—May, 1971—that the first two formal centers with a significant interest in population education in U.S. schools were inaugurated—at North Carolina and at Columbia's Teachers College. Thus it should be clear that the definition offered above is not something that is fixed, but is rather a shorthand awaiting further clarification.

Population education, sex education and family life education

Population education is *not* sex education, and it is *not* family life education. It differs from these two fields in that the demand for population education arises from a different set of historical circumstances and in response to a different set of problems. The Commission's own Interim Report provides the rationale for population education in noting that "the cumulative nature of population growth requires us to take the long view. The children born in this decade will be the parents of most of the children born in the year 2000." If these children are to make free and rational decisions concerning their future they must be provided with the knowledge and the tools necessary for decision making.

Sex education developed in response to a concern for changing mores and behavior, and in reaction to an increase in the incidence of venereal diseases and out-of-wedlock pregnancies.

Family life education grew out of recognition that much poor academic performance among students arose as a consequence of personal and family conflicts, and out of growing evidence of family instability.[1]

The content of sex education includes male and female anatomy, the physiology of reproduction, psychological differences between the sexes, and ethics of sexual behaviors.[2]

The content of family life education includes facts, attitudes, and skills related to dating, marriage, and parenthood.[3]

While recognizing that both of these statements of content are open to debate by specialists, what can be generally stated is that both fields emphasize the individual. The concern is with interpersonal and familial competence and is on the self-worth of individual. Population education

on the other hand is concerned with the interaction between the individual and the society in response to a perceived problem which is different from the problem that gave rise to the other fields. In noting the differences between the fields it should be emphasized that each is important in and of its own right, and that they are probably complimentary. Aspects of sex and family life education, such as human reproduction, may be necessary but are not sufficient for the development of population "literacy."

The Content of Population Education: What is Population Literacy?

Although the boundaries that describe the field of population education are not clearly defined it is useful to try to describe what a student might be expected to know having completed a primary and secondary school program in population education.

He could be expected to have developed some basic understandings of demographic processes. As a result he will better understand why and how personal and societal decisions made today have an impact many years in the future, and the advantages and disadvantages associated with the small family norm for himself and for his community.

He could be expected to have developed some basic understandings of the interaction between population and public policy. As a result he will understand how various societal actions, such as a change in the role and status of women, affect and are affected by population policies, he will understand the causes and consequences of urbanization, and the nature and rationale for his country's population policies.

Finally, he will have developed some basic understandings of the nature and consequences of human reproduction. As a result he will hopefully be in a better position to plan his family, making use of the services that are available to that end, if he so decides.

Population Education in the United States: Some Preliminary Observations

The following are some preliminary observations about the situation as it exists in the United States today. These will be tested and modified for the final report to the Commission.

1. Few educators seem to be concerned with population per se. Most of the concern among educators, where it exists, is crisis-oriented and stems from fears of environmental deterioration which are more often than not seen in one-to-one relationship with population growth. For example, the first objective of the population dynamics unit of the "Man and Environment" curriculum developed by Miami-Dade Junior College and very widely circulated by the U.S. Office of Education is "to make the student aware that overpopulation is the underlying cause of our environmental problems."[4]

2. As the above quote suggests there is also a tendency, that can be seen in other curricula as well, to oversimplify what are fundamentally complex problems.

3. There is a tendency—sometimes open and sometimes not—to propagandize and indoctrinate toward a two child family norm. As one educator put it, "I support (a particular book's) 'coercive thrust' and believe it to be more realistic kind of reactant against current pronatalistic children's literature."[5]

4. The emphasis in dealing with population is on growth rates and on absolute size, which are almost always portrayed as bad. Other population characteristics—such as distribution, density, age structure—are given too little attention.

Just as there is no country in the world which one can point to as a model for others to emulate, so too is there no school system, state or local, which represents a population education model for the United States.

Baltimore City Schools, with the assistance of Planned Parenthood of Maryland, developed a resource unit in 1967 for use in the social studies. But there is some evidence that teachers do not get to that part of the curriculum. This year Baltimore is again making a major effort in teacher training and unit development, the results of which will be eagerly awaited.

More than fifty teachers have participated during the summers of 1969 and 1970 in institutes sponsored by NSF at Utah State University. That program's emphasis on technical and substantive demography can be seen in the course outlines developed by the teachers in their individual schools.

That many teachers are anxious to learn more, and to teach more, can be seen from the large number of requests for information, and applications filed for the Utah State Institute. Another indication is the large number of applicants for the so-called Manressa workshop 1970, which required evidence of classroom work in population for application. But by and large their efforts have been personal and not diffused to others. And supplementary text and other materials for both teacher and student use are lacking.

It is often suggested by educators that textbooks are the curriculum. If so we still have a long way to go in the population field. Except in the most recent books—and then only in some—population material is highly descriptive and not analytic concerning the causes and consequences of population change. The discussion is not very extensive and often comes late in the book, which usually means that the teacher does not get to it. This is especially so in the social studies and history areas.

No comprehensive curriculum plans with associated materials are yet availabe. Some that are just over the horizon are very ambitious with regard to trying to combine environmental and population concerns in one package, and seem to suffer many problems as a result.

Where materials do exist—the appendix offers a preliminary list of some already available or in process of development—they have been created without specific reference to their use in the schools. As a result they are less used than they might be. The type of packaged materials —texts, test items, teachers' guides, and supplementary materials—that seem to be of greatest interest and use to teachers do not yet exist. Where the use of materials is most clearly specified—as in the case of the unit in the *Investigating Man's World* series (Scott, Foresman)—the use of population data is incidental to the purpose of the course. At present, therefore, we have a reasonable amount of material for a field so young, but it is not part of an integrated, graded and sequential population learning program.

Given the already crowded curriculum we do not see many population *courses* being developed at the pre-college level. We do see some attempt at *infusing* population concepts where relevant throughout the curriculum, whether the subject be compound interest in mathematics or the industrial revolution in history. A third alternative, the development of *modules or units* which replace existing units with different subject content, is being tried at Indiana in an effort to develop a unit for a twelfth grade "Problems of Democracy" course.

The strengths and weaknesses of the three approaches—both from the viewpoint of increased population learning, and easier access to the school—needs further exploration. In the end, a mixture of all three is likely to characterize population education programs.

The Future for U.S. Population Education

As soon as possible we need to identify and fund the development of a small number of university population education research and development centers that would devote significant human resources to defining the field and develop materials and methods for their diffusion into the schools.

Funds need to be made available for the development of packages of materials—student and teacher texts and guides, test items, audio-visuals, etc.—for immediate use until more fully developed programs are articulated.

Since it is impossible to make all teachers competent in handling population materials a strategy for training a hierarchy of teachers within school systems must be developed to provide a broad range of competence to the system. Funds will be needed for support of pre-service and in-service training, summer institutes, etc.

State departments of education should be encouraged to identify one or more specialists to assume responsibility for coordinating state programs. Funds to train these specialists, and perhaps even to assist states in developing such a position, should be available.

Research on a wide variety of subjects should be initiated. More needs to be known about the students', teachers', administrators', and com-

munities' knowledge of and attitudes toward population matters. This information is important for curriculum design and later program evaluation, and also for assessment of possible sensitivities in order to plan for them. Much more needs to be known about the development in the child of population-related concepts, such as family size. More also needs to be known about the influence of family size on family welfare, and about the psychological and economic value of children, among other important aspects of the knowledge base upon which education programs will rest.

Efforts to increase and improve communication between specialists and practitioners in the field will be needed to insure effective and expeditious program development.

The funds that may be needed for these and other programs will be estimated for the final report to the Commission.

It is likely that a unit or office within the U.S. Office of Education will be needed to disburse special funds that may need to be appropriated by the Congress and to coordinate the use of funds already available under existing legislation. The unit for Environmental Education recently established under USOE's Office of Priority Management is *not* at present suited to the task; they have, in fact, said that population education is not part of environmental education.

It has been suggested by some that population education will be viewed as sensitive by segments of the U.S. population—notably some Catholics and some blacks. Since population education involves a consideration of alternative futures, a discussion of values is inherent in the program. However, the goal is not to be conclusion-oriented—i.e. "try for two"—but rather it is to be open-ended. The student is viewed as an inquirer. It may be impossible to be value free, but it is fully possible to be value *fair*. Thus, rather than trying to protect oneself against a charge of black genocide, for example, a unit should be devoted to discussion of the arguments surrounding the issue and to an examination of the values inherent in the different positions.[6]

Last, but certainly not least, we will have to consider what are reasonable objectives for population education programs. We will have to define responsible behavior. And we will have to determine the extent to which schools can legitimately be expected to have an impact on changing behavior. Recent studies by Barnett and Swan suggest that knowledge and awareness of a problem do not necessarily lead to what might be considered responsible action in the face of the problem.[7]

Despite these cautions school education programs can be helpful, if properly defined and described, in creating an atmosphere and a forum where important public issues—such as population—can be discussed. With good planning and proper support we will be able to move ahead intelligently and expeditiously in planning such population education programs.

Schools tend to follow and respond to society's wishes rather than to

lead. The educator, as indicated earlier, is pressured from many sides to add new programs to the school curriculum. Thus population education, an important element in a national policy, may be difficult to get into the schools until such time that a national policy is formulated which raises population to a high level of consciousness within the society as a whole.

NOTES

[1] Paul Vahania, "Introducation" to Elizabeth S. Force, *Teaching Family Life Education: The Toms River Program.* New York: Teachers College Press, 1962.

[2] Luther G. Baker, Jr. and James Darcy, "Survey of Family Life and Sex Education Programs in Washington Secondary Schools and Development of Guidelines for Statewide Coordinated Programs," Family Coordinator, 19 (3), July 1970, pp. 228-33.

[3] Ibid.

[4] "Man and Environment: Revised Curriculum, November, 1970." Miami, Florida: Miami-Dade Junior College, p. 34. This curriculum is gaining considerable exposure as a result of efforts made by the U.S. Office of Education.

[5] Private Communication to Viederman, December 11, 1970.

[6] This position was well stated by Dean David Clark of Indiana University at the Population Education Conference held May 10-12, 1971 under the auspices of the University of North Carolina School of Education.

[7] Larry Barnett, "U.S. Population Growth as an Abstractly-Perceived Problem," Demography, 2 (2), February 1970, 53-60; Larry Barnett, "Zero Population Growth, Inc.: A Study of a Social Movement," Typescript.; James A. Swan, "Response to Air Population: A Study of Attitudes and Coping Strategies of High School Youths," *Environment and Behavior,* 2 (2), September 1970, pp. 127-52.

APPENDIX

Population Education in the U.S.: A Preliminary List of Available Materials and Projects (May, 1971)

1. *Teacher's Materials*

   Biller, Edward, et al. *Resource Unit on Population Pressure,* Baltimore, Md.: Baltimore City Schools, 1967. mimeo 24 pps. For Social Studies.

   Connecticut Demographic Council. *Resource Unit on Population Pressure.* New Haven, Conn.: Author, n.d. mimeo 30 pps. Revision of Baltimore unit.

   Elliott, Robin, et al. "U.S. Population Growth and Family Planning: A Review of the Literature," *Family Planning Perspectives,* 2(4),October, 1970. A Special Supplement. (Available from Planned Parenthood-World Population).

   Environmental Science Center. Golden Valley, Minn. "Perspectives on Population: A Guide for Teachers" mimeo, n.d., 18 pps.

   Intercom, "Focus of World Population,"6(1), January-February, 1964.

Intercom, "The World Population Crisis: What It Is and Where to Get Information About It," 10(4), July-August, 1968.

Massailis, Byron G. and Zevin, Jack. "Analyzing Population Data," in their *Creative Encounters in the Classroom: Teaching and Learning Through Discovery.* New York: Wiley, 1967. pps. 106-124.

* *Population Curriculum Study.* University of Delaware, Newark, Delaware. Professors Val Arnsdorf and Robert Stegner.

Sikes, O.J. III. *Teachers' Reference on Population Problems* (Revised edition). Yanceyville, N.C.: Caswell Family Planning Program, 1970.

* *S.T.E.P.* (Sourcebook for Teachers on Environment-Population). Institute for the Study of Health and Society, Washington, D.C. Katherine Horsley, Coordinator.

* *Sourcebook on Population for the Middle School.* New York: Teachers' College, Columbia University. Professors Hazel Hertzberg and Willard Jacobson.

2. *Classroom Materials*

* Biological Sciences Curriculum Study, Boulder, Colorado. *Investigating Your Environment.* Prototype module for 10th grade. (1970).

Environmental Science Center. Golden Valley, Minn. Curriculum units: "Population Variation," "Population Sampling," (grades 3-8); "Population Growth" (grades 6-12).

Focus: Population Control—A Study of Social Conflict," *Synopsis: Viewpoints of Social Issues–Problems and Remedies,* 2(10), Feb. 1, 1971. Different views on the problem excerpted from popular literature for students to compare and discuss. Teachers' edition gives full text and questions for discussion.

* *Population Profiles.* Center for Information on America. Washington, Conn. Thirteen units, which can comprise a course or which individually can be used in a variety of courses, are being prepared by Everett Lee, in cooperation with the Council of State Social Studies Supervisors.

* Population Unit for 12th Grade. "Problems of Democracy" course. Indiana University, Bloomington, Indiana. Drs. Howard Mehlinger and Jerry Brown.

Populations (1969). Science Curriculum Improvement Study (SCIS). University of California, Berkeley, California. A preliminary edition of a unit on populations—plant and animal—to be used in the third year of the total program sequence; includes activities and teaching suggestions. The emphasis is on the biotic community; little reference to man directly.

Sociological Resources for the Secondary Schools. American Sociological Association. Washington, D.C. A few units have been developed

* In process

experimentally that have population content. These include: "The Difference Between Two and Three: Family Size and Society," by Lincoln and Alice Day; "Puerto Rico: A Case Study in Population Change," by George C. Myers; "Migration Within the United States," by Basil G. Zimmer.

Sociology: Modular Learning Unit. Investigating Man's World Series: Regional Studies. Glenview, Illinois: Scott, Foresman, 1970. This unit (48 pps.) is entirely devoted to population.

3. *Books for Children*

Cook, Robert C. and Lecht, Jane. *People! An Introduction to the Study of Population.* Washington, D.C.: Columbia Books, for the Population Reference Bureau, 1968. 63 pps. for grades 7-9.

Frankel, Lillian B. *This Crowded World: An Introduction to the Study of Population.* Washington, D.C. Columbia Books, for the Population Reference Bureau, 1970. 60 pps. for grades 5-7.

Lowenherz, Robert J. *Population.* Mankato, Minn.: Creative Education Press, 1970. 120 pps. age 10+.

Oppenheimer, Valerie K. "World Population Growth: Past, Present, and Future," *Headline Series* (Foreign Policy Association), No. 206, June, 1971.

Pringle, Laurence. *One Earth, Many People: The Challenge of Human Population Growth.* New York: Macmillan Co., 1971. 86 pps. age 10 +.

4. *Training and Research Centers*

Center for Population Education. Teachers' College, Columbia University, New York, N.Y. (Director to be announced). Established 1971.

Center for Population and Environmental Education. University of North Carolina, Chapel Hill, N.C. Dr. Norton L. Beach, Dean, School of Education. Dr. David Burleson. Established 1971.

Other Universities with an interest in Population Education:

Cornell University, Ithaca, New York
Professor Joseph M. Stycos, Professor Parker Marden

Florida State University, Tallahassee, Florida
Professors Charles Nam, Byron Massialis, James Sundeen

Harvard University, Cambridge, Massachusetts
Dr. David Kline, Professor Russell Davis

University of Michigan, Ann Arbor, Michigan
Professor Thomas Poffenberger

University of the Pacific, Stockton, California
Professor Edward Pohlman

Western Washington State College, Bellingham, Washington
Professor Irwin Slesnick

5. *Teacher Training Programs*

Population Problems: Population Analysis. Utah State University. Logan, Utah. Professor Yun Kim. Courses in technical and substantive demography for school teachers. Final weeks devoted to curriculum planning. Each summer since 1969, for eight weeks. NSF supported.

Workshop: Population Education (July 6-16, 1971). Syracuse University, Syracuse, N.Y. Professor Sol Gordon.

6. *Organizations with Special Interest*

Colorado Population Institute. Denver, Colorado, Richard Lamm.

Connecticut Demographic Council. New Haven, Conn. Jack Hillary Smith.

Planned Parenthood-World Population. New York, N.Y. Dorothy Millstone.

Population Council. New York, N.Y. Stephen Viederman.

Population Reference Bureau. Washington, D.C. Rufus Miles.

Date: May 27, 1971

Memo to: The Population Commission

From: Stephen Viederman

Subject: Possible recommendation concerning population education

The following recommendation concerning population education is proposed for the Commission's consideration:

The Commission recommends that the Congress appropriate significant funding to agencies and organizations at the national, state, and local levels for the development of educational programs concerning the causes of population change and its consequences for the individual and for the society, so that the next generation will be better prepared to understand the nature of the challenge to themselves and the society arising from population growth, and will take responsible action as citizens regarding public policy and individual fertility behavior.

Funds will be needed for the following broadly stated purposes:

1. The establishment and support of a small number of university based *population education research and development centers* that will devote significant attention to defining the field and to developing materials and methods for their diffusion into the schools.

2. The development of *packages of materials*—including student and teacher texts and guides, test items, audiovisuals, etc.—for use in the schools.

3. The support of *teacher training programs*—pre-service, in-service, summer institutes, workshops, etc.

4. To encourage *state departments of education* to identify population

education specialists who will assume responsibility for coordinating state-wide programs, funds both to train specialists and to assist the states in supporting such positions.

5. *Research* on a wide range of subjects related to the introduction of population education into the schools.

6. For the development of *model programs* whose progress can be closely followed in order to isolate lessons for future program development.

7. To increase and improve *communication* between specialists and practitioners in the field in order to inspire effective and expeditious program development.

Estimated amounts needed to develop population education programs will be included in my final report to the Commission.

In order to insure that this broad program is properly developed, a unit will have to be established in the U.S. Office of Education for the disbursement of funds and coordination of activities. Other agencies of government concerned with educational development, such as the National Science Foundation and the proposed National Institutute of Education, should also be encouraged to assist with population education programs.

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Carolina Population Center, Monograph Series

1. Therapeutic Abortion
2. Final Report: International Workshop on Communication Aspects of Family Planning Programs
3. Medical Students and Population research
4. Beliefs and attitudes about contraception among the poor. Family Planning Educational Material: An annotated bibliography of selected items
9. Culture and Population: A Collection of Current Studies
11. Incentives and compensations in birth planning.

Emands, Elizabeth, Editor, *A Report on the First National Family Planning Conference for Nurse Educators in Baccalaureate Schools of Nursing,* Monograph 7, Chapel Hill, University of North Carolina, 1970, 205 pp.

This report reviews the underlying problem including population and other influences on contraceptive behavior. Aspects of family planning education include professional, community, family, and patterns of delivery of service. Specific nursing roles such as counseling needs are discussed.

Feldman, Frances Lomas, *The Family in a Money World,* Family Services Association.

Grey, Naomi Thomas, "Family Planning in the 1970s—A Dynamic Force

Affecting the Status of Children," Child Welfare, Vol. 1, No. 3, March 1971, pp. 143-9.

Discussion of the position that if family planning is to be an effective and dynamic force for enhancing the welfare of children in this decade, the social work profession must step up its involvement in the provision of such services. Serious problems to which unplanned pregnancies may be related are discussed; a rejected, sometimes battered child; a mother damaged in physical and mental health; a family burdened beyond its financial responsibilities; an unwed teenager facing disruption of a normal life. 16 item bib.

Hardin, G., *Population, Evolution, and Birth Control; a College of Controversial Ideas,* 2nd Edition, W.H. Freeman, San Francisco. An excellent collection of readings which would be very useful for a text in an interdisciplinary course. There are two teacher's guides for this book with discussion questions and teaching notes.

Cherniak, Donna and A. Feingold (ed.), *Birth Control Handbook, Montreal Womens Liberation,* Montreal, Canada, 1970.

This is in my opinion the most complete and concise information on birth control methods. It is prefaced by a two page introduction which gives a women's lib view of birth control which does give insights into one class of reactions to birth control. There are also a series of art photographs which bear no relation to the text, but further express some of the feelings stated in the preface. I have enough copies of this for the participants if desired and am enclosing a copy for examination. (Michael P. Johnson)

Ehrlich, P.R. and Anne Ehrlich, *Population, Resources, Environment, Issues in Human Ecology,* W.H. Freeman, San Francisco, 1970.

Haselkorn, Florence, ed., Family Planning: *The Role of Social Work, Perspectives in Social Work,* Vol. II, No. 1, Garden City, New York: Adelphi University School of Social Work, 1968.

Knutson, Andie L., *The Individual, Society, and Health Behavior,* New York, Russell Sage, Foundation, 1965, 529 pp.

This book deals with persons, and group behaviors, particularly in relation to health practices. It includes the underlying sociological and psychological concepts.

Lytle, Nancy A., *Maternal Health Nursing,* Dubuque: Wm. C. Brown, 1967.

Includes an article on "The Nurse and Family Planning."

Manisoff, Miriam, *Family Planning: A Teadhing Guide for Nurses,* New York: Planned Parenthood Federation of America, Inc. 1969, 104 pp.

In addition to background information on history and population, this book provides specific information about locating and providing

effective family planning services. The material is organized for course inclusion in a nursing program.

Manisoff, Miriam T., ed., *Family Planning Training for Social Services,* New York: PP-WP, 1970.

A teaching guide in family planning for in-service training in public welfare departments. Contains extensive bibliography on family planning.

Bauch, Julia, "Federal Family Programs: Choice or Coercion?" *Social Work,* Vol. 15, no. 4, October, 1970, pp. 68-75.

The position is taken that family planning programs linked to welfare programs are necessarily coercive and cannot significantly reduce poverty, as has been claimed. The author discusses charges of black "genocide" and the difference between the individual and structural theories about the causes of poverty and concludes that lack of access by the poor to family planning services should be regarded as a problem in the distribution of medical services and not as a welfare problem. Footnotes contain numerous references to other writings.

Richardson, S.A. and Guttmacher, A.F. (eds.), *Childbearing—Its Social and Psychological Aspects.* Baltimore: Williams and Wilkins, 1967.

A review of the social and psychological factors that influence the course of pregnancy, delivery, and outcome in order to clarify the complex interaction between the biological organism and its social environment as it relates to childbearing.

Ryder, N.B. and Westoff, C.F., *Reproduction in the United States: 1965.,* Princeton University Press, 1971.

Report of the most recent national sampling research in family planning. Topics include: Knowledge, attitudes and practice of birth planning.

Sheps, Mindel C. and Ridley, Jeanne C. (eds.), *Public Health and Population Change, Current Research Issues,* Pittsburgh, University of Pittsburgh Press, 1965.

A book of readings covering social and health aspects of family planning.

Stein, Herman and Irwin T. Sanders, Social Work, *Education, Family Planning, and Population Dynamics: Summary & Critique of an International Conference,* New York: Council on Social Work Education, 1971. (Reprinted from *Population Dynamics and Family Planning: A New Responsibility for Social Work Education,* CSWE, N.Y.)

A summary of implications for social work education, emerging from the Honolulu Conference, March 1970.

Vincent, Clark, (ed.) *Human Sexuality in Medical Education and Practice,* Charles C Thomas Publishers, Springfield, Ill., 1968.

———————, "Fertility Indicators: 1970," Department of Commerce, April 16, 1971.

———————, Interim Report of the Commission on Population Growth and the American Future.

Rufus Miles Jr., Ph.D., President of the Population Reference Bureau, discusses the paradox between verbal commitment and actual performance of governmental organizations in regard to population education programs.

The Impact Of Organizations On Population Education*

Rufus E. Miles Jr.

The new field of population education has many paradoxes. The first is that interest in the subject has suddenly begun to gather momentum after more than a decade of decline in the U.S. birth rate. The birth rate reached its modern high point of 25.0 in 1957 and then began a steady downward trend until it reached 17.5 in 1968. It has gone up slightly, but very slightly, since 1968. The age-specific birth rates show no sign of an upward trend. Why is it that the great surge of interest in reducing population growth and in the collateral subject of population education should come now rather than a decade ago?

The second paradox is that this surge of interest is now becoming especially active in the USA, a nation where the potential agricultural and industrial production is very much higher than its present levels and which could, therefore, support much higher levels of population than it now has. Food and industrial products do not seem, in 1970, to be important limiting factors which are causing the nation suddenly to become interested in population education. If food and industrial production are not the limiting factors, as they are in India and Egypt, what are the limiting factors and how do they translate themselves into national concern?

The third paradox is that although four Presidents—Eisenhower, Kennedy, Johnson, and Nixon—have all placed problems generated by

* Presented at the National Council for the Social Studies Symposium on "Status and Implications of Population Education Programs," November 24, 1970.

population growth close to the top of the human agenda, the percentage of schools, school systems, and teachers who have shown that they agree with these four Presidents by making the subject of population an important part of the school curriculum is very low. What does it take to get the educational establishment to change its priorities and then change the curriculum to fit its revised priorities?

The fourth paradox is that although four Presidents have said that the population problem is of very high priority, not one of the four has sought to cope with the problem by exerting genuine executive branch leadership. I say this even though President Nixon sent a special message to Congress on the subject of population in July of 1969. That message, welcome as it was, asked Congress to create a two-year study commission on Population Growth and America's Future. That recommendation might be called a deferral of acceptance of responsibility and leadership. It puts off for two years the need for the President to decide whether he will follow the national trend or be in front of it. Meanwhile, the initiative has been left to the Congress. Although Congress has not shown much inclination toward leadership in other areas of public policy, they have taken more initiative and responsibility for doing something about the population problem, including population education, than has any President or any department of government.

The fifth paradox is that despite its importance, the population problem seems to have inherent in it the quality of creating unusual confusion as to what should be done, how it should be done, and who should do it.

There are other paradoxes, but these will do for a starter.

Undoubtedly the most important single reason why the problem of population growth and distribution is difficult to grapple with in school curricula is that it is not an organized body of knowledge with a group of professional people who are committed to the preservation and transmittal of that knowledge to another generation, as well as the further development and improvement of that body of knowledge. It is an extraordinarily important problem for the future of the human race, but, like other complex problems, it cuts across many disciplines; it has no generally accepted parameters; it has no beginning and no ending. Unlike a quadratic equation, it has no universally accepted solution. For people who are uncomfortable with controversial problems without right and wrong answers, this subject surely has the potential for a peck of discomfort. And, generally speaking, the American public school system is not designed to handle controversial problems which may imply the possibility or likelihood of changing social values and mores.

It is all to the credit of individual teachers and some school systems, however, that despite such hurdles and roadblocks, they have decided that the subject is so important that they cannot in good conscience let the students go through their schools without becoming aware of a set of problems which is of extraordinarily high importance to them, their future offspring, and the whole human race.

From far and wide evidence seems to be accumulating that despite all difficulties, interest in population education has achieved a quantum jump in the past twelve months. The repercussions of Earth Day are still being felt. A woman lecturer and writer who travels extensively recently wrote to me that as she travels, her audiences, both youth and adult, are very much more interested in the subject than ever before. Chapters of Zero Population Growth are said to be the most rapidly growing organizations on college campuses. Population and environmental questions are the debate topics of the high school debating organization this year. New textbooks give a much greater attention to the subject of population than they have heretofore.

Under these circumstances, what organizations are available to assist interested teachers in launching population education programs or units in their courses? Let me enumerate some of the organizations which are working in the vineyard, and give you a brief report on some of the things they are doing. This is by no means a complete listing of assessment. It is illustrative.

So far as the Federal Government is concerned, the Office of Education in HEW is, of course, the focal point for such responsibilities. But the Office of Education is just beginning to gear up to handle its duties. It has a new law which could become the basis for an important expansion and development of population education nationally. The new law is P.L. 91-516, "The Environmental Education Act," approved October 30, 1970. It authorizes $5 million in fiscal year 1970-71; $15 million in 1971-72; and $25 million in 1972-73. Authorizations are not appropriations and it remains to be seen how much will be appropriated. This will depend, in part, on how much interest is shown by the public school systems in developing good projects.

While the main thrust of the law, as its name implies, is education in respect to the improvement of the ecological balance within the USA, there is clear recognition that this includes matters having to do with population balance, as indeed it should. If it did not, it would not be worthy of the use of the term ecology, a word which is prominently used in the Act. The term environmental education means, according to the Act, "the educational process dealing with man's relationship with his natural and man-made surroundings, and includes the relation of population, pollution, resource allocation and depletion, conservation, transportation, technology, and urban and rural planning to the total human environment."

The Act is intended to work in such a way as to put the burden of initiative and responsibility upon local school systems to develop projects for teaching principles of ecology with varying emphases depending upon the school systems and the physical locations of the sponsoring schools. A school in Harlem would undoubtedly approach the subject in quite a different way from a school in Pocatello, Idaho, or one in Bluefield, West Virginia. Funds are to be made available for such activities as

the development of curricula; the support of environmental education programs at the elementary and secondary levels; pre-service and in-service training programs for teachers and for government, industry and labor leaders and personnel; community and adult education programs; planning of ecological study centers; and preparation and distribution of materials suitable for use by the mass media.

Another bill which appears certain to be enacted before Congress adjourns is the "Family Planning Services and Population Research Act of 1970." Included in this bill is a small authorization for grants and contracts "to assist in developing and making available family planning and population growth information (including educational materials) . . . " While this authorization would cover the costs of developing and establishing formal population education couses, it is possible that it may cover the development of limited educational materials of value to teachers of population dynamics.

Still another related bill—the proposed Population Education Act of 1970—was introduced in both Houses of Congress but did not receive active consideration in the current Congress. This bill generally parallels, with respect to population education, the approach of the recently enacted Environmental Education Act. This bill will certainly be reintroduced in the next Congress, but whether it becomes an active bill next year may depend in part on subsequent developments in the implementation of the two legislative proposals I have already described.

So far as private institutions are concerned, time and space will not permit me to do more than enumerate a number of those which are actively interested in and engaged in aiding the development of population education. I refer particularly to those organizations which are concerned with population education within the USA, although I shall certainly include the Population Council which is primarily interested in the development of population education beyond the U.S. borders.

Of the universities involved, the University of Delaware, the University of North Carolina, Cornell University, the University of Michigan, and the University of Wisconsin, at Green Bay, lead the way. You will hear more about the program of the University of Delaware from my associate on this panel, Dr. Stegner, as well as from our chairman, Dr. Arnsdorf. I regret that I have not yet had the opportunity to visit any of these five institutions, though I hope to do so before much more time has elapsed. Each of them is approaching the need for population education in its own way and I am very hopeful that they will maintain communication with one another. If they do not, the Population Reference Bureau will be strongly tempted to establish a communications network.

Private non-profit organizations other than universities which are deeply concerned about and engaged in promoting population education are:

1. The Population Council, which has extremely high competence in demography and which has had a special concern for the problems

of underdeveloped nations. Dr. Viederman is here today and will give you some of the special perspectives which the Population Council has on this subject.

2. Planned Parenthood/World Population which has spent most of its lengthy and useful institutional life in the provision of counselling and family planning clinical services to adults, but which is now increasingly interested in promoting the development of population education at the secondary school level, especially that which can be linked with family life education and sex education.
3. The Institute for the Study of Health and Society, a Washington based, new organization which is composed of young people, many of them students, who have been bitten by the bug of improving the quality of human life, and who realize the important part that population stabilization has to play in the achievement of their goals.
4. The Population Institute, a relatively new organization formed by the Methodist Church to communicate with young people on the subject of population dynamics.
5. The Center for Information on America, located in Washington, Connecticut, which is in the process of publishing a series of brief publications and study units on the subject of population, developed in cooperation with a leading representative of the Population Association of America, Everett Lee. These are pitched at the secondary school level.
6. The Educational Research Council of America, located in Cleveland, Ohio, which is developing units in the field of population dynamics related to a numberr of different levels and subjects at the primary and secondary levels.
7. And, not least, I hope, the Population Reference Bureau, which is strongly interested in education of young people about the subject of population, and which plans to do as much as its funds permit. I have brought along a supply of copies of our recently published Population Bulletin on the subject of population education which I will be glad to make available to you after this symposium. It speaks at some length of a workshop for fifty teachers sponsored jointly last spring by Planned Parenthood of Maryland, the Carolina Population Center, and the Population Reference Bureau.

This is not by any means a total list of the non-profit, educational organizations involved in population education; I hope those which I have omitted will forgive me. In a slightly different category is the membership organization Zero Population Growth (ZPG), and some others with a combination of concerns for the preservation of our environment and the rapid reduction in population growth.

What these private organizations can do and will be doing, since they do not have money to hand out to interested schools, is to develop materials, provide technical assistance, act as clearing houses for information and new ideas, do a small amount of research, and generally act as cata-

lytic agents in the stimulation of population education. If they perform this role well, the triangular relationship of the teachers and school administrators, initiating the introduction of population education, the private, non-profit organizations, providing technical assistance and materials, and the U.S. Office of Education, providing seed money for launching new programs, ought to yield some excellent results. More may come of this three-way partnership than we would normally expect. Times and attitudes are changing rapidly. We may see population education, related closely to environmental education, move rapidly toward center stage in the 1970's.

William S. Kerr III, Ph.D. from the University of West Florida examines the population crisis in the United States.

Population In The United States: A Crisis In Numbers

William S. Kerr III

Introduction

If one assumes that a crisis is an unstable state of affairs (a crucial period of time), then the United States is, indeed, undergoing a crisis. Natural and social environmental stresses are seemingly ubiquitous. Our transportation, education, health and crime problems are intensifying. Moreover, we are experiencing increased air, water, land and noise pollution. Although exponential growth of population is not offered as the total cause of our environmental ills, there seems to be a considerable correlation between environmental degradation and population growth in an affluent industrialized society.

The Population Problem

Many citizens have serious doubts concerning whether the United States has a population problem. At first blush, some would say that a continued population growth rate of 1 percent per year is not serious enough for worry. It is implied that because there is a great amount of vacant land in the United States that we should be able to support a much larger population than it now contains. However, many specialists feel our population level is approaching a maximum limit and that a stabilization should be achieved as soon as possible.

We do not have a population problem in the Malthusian sense. That is to say, our population is not threatened by famine and pestilence at

this time, and the possibility of war is not entirely related to our internal population. Indeed, our population problem is related to the lack of environmental quality both in the natural and social sense.

There are many family planners who feel that population growth is not related to racism, poverty, drug addiction or crime; but certainly our intuitive and aesthetic senses tell us that degradation of our social environment is intensified by a rapid population growth.

It is less than difficult to observe overloaded facilities in health, education, recreation, transportation, and power. We have felt the oppression of crowded streets and high noise levels, and viewed the irritable personalities of many urbanites. It seems logical to deduce, if we add another 70 to 80 million to our population by the year 2000, the situation will deteriorate considerably. Synergistically, social degradation could become more acute as our average family income increases to an estimated $21,000[1] by the turn of the century. A summary of selective population characteristics amy help to give credence to the seriousness of the problem.

Our country contains a population of about 205,000 people, and it increases 2 million per year or about one percent per year.[2] If the U.S. should sustain its current growth rate it would yield a total of 3.25 billion people in 300 years, which is almost equivalent to the world population at the present time. Surprising to some people is the fact that the majority of our population growth comes from middle and upper class citizens who feel they can afford additional children. Several studies reveal that if the birth rate of the poor and the near poor were reduced to the level of the nonpoor the number of live births would decline by only 5 percent.[3] This figure is related to the fact that there are fewer poor people than rich individuals. Regardless of who increases the population, the United States will continue to grow.

Based upon the assumption that migration will continue and that there will be an average of 2.5 births per family, it is projected that the population will be in the vicinity of 280 to 285 million by 2000. It should be noted that demographic forecasting has been notoriously inaccurate, mainly because there are so many unknown social and political variables to include in making projections beyond 5 to 10 year periods. This estimate may be a good educated guess if one considers that the United States Census Bureau has projected a population range of 266 to 320.8 million.[4]

The root of our population dilemma is related to an understanding of the difference between arithmetical progression, in which numbers expand by addition such as 2, 4, 6, 8, 10, etc., and exponential (geometric) progression which grows by the process of multiplication, for example 2, 4, 8, 16, 32, 64, 128, etc.

To help make this phenomenon clearer, let us say that we have two countries with a growth rate of 1 percent which means that the population doubles every 69 years. The smaller country will double from 2.5 million to 5 million in 69 years, but the larger country such as China, will double

from 800 million to 1.6 billion during the same time period. It is important to point out when a population doubles, that the services within society must expand as well. But more importantly, it is common knowledge that political, social and economic affairs increase more than twice with a doubling of population because of the increased number of interrelations which accompanies greater numbers.

Let us expand exponential growth a bit further by saying that you have been offered the opportunity to choose between receiving a lump sum of $1 million dollars for some work to be performed or choosing to receive a penny the first day, then doubling each amount thereafter for each day of work. If you chose the lump sum you would be disappointed because the hypothetical wage earner would exceed $1 million dollars on the 28th day.[5] An important characteristic of these number problems is that the number seems to increase very gradually at first, then suddenly it jumps when the total amount becomes quite large. It is analogous to compound interest rates acquired at a local bank. A similar phenomenon occurs in world population expansion. Just prior to the Industrial Revolution, about 1650 A.D., the world population had taken 1600 years to double. It is now doubling every 35 years. How has population growth affected the environment?

Exponential growth of population in combination with expanding demands for consumer goods in an urban-industrial age can put great pressure on our landscape. The power demand for domestic and industrial uses is doubling every ten years. This demand gives rise to a scarred topography via surface mining, as well as to pollute our air and water with particulates, gases and waste heat. Similarly, the landscape is being degraded by extracting large quantities of aluminum, copper, iron, and lead among others. Since the processes by which these nonrenewable resources were formed is no longer active, it is just a matter of time before these minerals will be in short supply. The extraction of minerals in underdeveloped countries is becoming increasingly popular as they industrialize.

The advanced nations are now striving to help underdeveloped nations such as India, which consumes nearly 1/100 the power per capita of the United States,[6] to industrialize. But imagine the pollution, the exploitation of minerals and the energy that would be produced if most nations were industrialized to the level of the United States. It is all too clear that the earth's resources could not sustain such expansion based on our current level of technology. An industrializing world simply is not able to afford 5 to 6 billion consumers. Living space is also being affected by population demands.

Many authorities are pointing to the lack of living space which can, in part, be related to population expansion. Those of us who cherished the outdoors for the thrill of fishing, hiking, hunting, sailing, bird watching, mountain climbing, etc., are aware of the diminution of these forms of recreation. Yosemite, in the summer has been described as some-

thing like Macy's the week before Christmas with air pollution thrown in as a bonus.

Population and its per capita demands have resulted in the urbanization of highly productive agriculture land as well as to reduce the amount of wilderness. There is considerable pressure by cattle, timberland, and mining interest to exploit public lands and a great deal of land has been reduced by damming for irrigation and electric power. Furthermore, constant development of transportation facilities on unused land in form of roads, airports, and rail lines has reduced our earth space. If we take the exponential increase in population into consideration, there is reason to believe that we are rapidly reducing our living space.[7] The question might be asked, "Why don't we use the sparsely populated areas in the West, the Midwest, and other areas of our country?" The answer is quite simple: people do not live there because it is not feasible from a climatic, topographic, economic, and especially, from an accessibility viewpoint. It is possible to live in much higher density environments exemplified by the Netherlands and the Nile Valley, but do these conditions lead to a quality of life? Is it desirable? However, the potential water supply crisis may prove to be more serious than a loss of space.

We have trouble envisioning that there is a potential water shortage problem in the United States because we take water for granted. However, a presidential committee on water resources reported several years ago that we will be consuming 18 per cent of all the precipitation that falls in the United States by the year 2000. That is about our limit in view of the loss of water from: plants and soil; runoff; power and transportation needs; and especially unusable polluted waters including the Great Lakes and our major rivers. Many of our cities are now polluting and overusing their underground water supplies because population growth and the associated waste products, have exceeded our technical ability to take care of the effluents with relationship to our current economic base and list of priorities.[8] Population growth could also influence the amount of detrimental pesticides in our milieu.

The expanding need for food in the United States and the world has resulted in the increased use of chemicals, especially pesticides. Concentrations of DDT and other chlorinated hydrocarbons may cause the extinction of eagles, hawks, and the peregrin falcon as well as many other animals. Man, who concentrates DDT in his body, may very well become the victim of his own making.

An equally important factor in general pollution is the phenomenon sometimes termed growthmania. An annual increase in the gross national product of 4 percent to 5 percent will almost certainly result in the production of wastes.[9] The compulsive notion that infinite economic growth is good, contains no more logic than a belief that indefinite population growth can be sustained. To question the undesirability of further economic expansion is, to some, heretical, to others, unAmerican and to many more, akin to opposing motherhood.

Population Stabilization Problems

The writer shall now direct attention to the reasons why the United States has been unable to move very rapidly toward a stabilized population level. One of the primary reasons for continued population growth is because this country has adopted a policy of freedom of choice toward having children. That is, we have the freedom to choose the number and spacing of our children within the dictates of our personal conscience. This philosophy seems to be a direct result of the family planning movement in the United States which has gained considerable favor within the federal government in recent years. Unfortunately, a family planning policy is not a population policy because it has very little to do with limiting the family size.

There are several other factors which have played a role in the lack of acceptance of the attitude of the two-child family. Most of them are social factors. For example, there appears to be a correlation between having children and the unconscious desire to seek immortality. The child represents perpetuation of the mother or father. Many mothers seek large families as a psychic defense against lack of interesting employment, or an inability to acquire a sense of belonging to a satisfying social group. Some families, especially in or near poverty level, lack the knowledge and medical services available to higher income people. Large numbers of parents have strong preferences for particular sex distributions. If the family does not acquire the right sex distribution they keep trying. The result is more children than preferred. Most people are subtly influenced by the pervasive growth in American life; the attitude that any economic system which is growing is good, and therefore that continually having children is equally good. Government policies have reinforced the pronatalist influence by making it economically advantageous to have children, such as high taxes on unmarried individuals, tax deduction for families with children, and public housing for families with many offspring.[10]

If population is not brought under control in the next two decades or so, we may expect our freedoms to be more impaired. Perhaps the government will have to resort to authoritative orders (fiat) such as regulating family size and the movements of people. One may have to get reservations to go to a recreation area, traffic problems will certainly be more severe, the noise level will continue to increase at about one decibel per year and schools will be overtaxed even more than they are today.

Toward Population Stabilization

In lieu of these awesome possibilities it would seem that we must take a closer look at population control from a variety of viewpoints. The writer offers the following possibilities for eventual reduction to the two-child family concept:

1. We must take a serious look at the freedom of choice policy. If we continue to utilize our earth as we are today, the "right" to have children will be among the least of our possessions to be lost.

2. Perhaps we should divert our economic energies away from an emphasis on growth in consumer goods to preserving and enhancing the quality of our natural and social environment via recycling and urban redevelopment. We must invest in facilities and services which are designed to improve our lives, slow down the use of non-renewable resources and reevaluate our priorities. Which is more important, a livable urban environment or putting men on the moon? It would seem that economists would be more receptive to population if they realized that an exponential increase in population will eventually give rise to more poor people. What businessmen need is more Americans who spend money, not more Americans.

3. We must attempt to change people's attitudes toward family size via education rather than by some coercive means such as taxes resulting from governmental decree. Young students should be encouraged to understand the future costs of raising a large family. Does it make more sense to have four children, all of whom are suffering because you cannot afford to provide for them, or two children that can be fed, clothed and brought up in a stable world relatively free of environmental degradation?

4. We must provide women with more satisfying and better paying employment in a variety of service industries as a method of helping them to acquire self realization.

5. We must strive to acquire additional birth control services so that young adults as well as mature females, that cannot avoid the unwanted child, will have the opportunity to choose. To the best of our knowledge providing birth control and contraceptive services has not increased sexual activity. It could, however, reduce the burgeoning venereal disease problem.

6. It is important to eliminate immigration as early as possible. This could reduce population growth by 20 percent per year.

7. It is important to develop more leadership against the pronatalist influence in the United States via private nonprofit organizations. Leadership should come from the older generation who can transmit their wisdom to today's youths in terms of retention of the family concept and of presenting the point of view of how over-population could jeopardize many of our personal freedoms. The older generation, who believes that democracy is superior to totalitarianism, can help make it clear that laws and regulations will become more numerous and restrictive as our nation increases in numbers and complexity.

8. The most difficult population control problem is to relate to minority groups who see the solution to rats, roaches, lead-paint poisoning, food and shelter as being more relevant than population control. Perhaps the best possibility is to show how an education can reduce the venereal

disease rate. These groups should be impressed with the fact that a smaller family size has the potential of increasing their per capita income by reducing living expenses. Furthermore, there is little doubt that health and increased affluency of minority communities would be greatly improved by reducing the number of unwanted births.

Summary and Conclusion

Exponential population growth in the United States, in conjunction with the attitude of growthmania and a prevailing societal affluency, has given rise to a multitude of environmental problems. Perhaps this compulsion toward environmental destruction is related to our anthropocentric attitude that a supreme being has given man the power to control life on earth. This godlike feeling has acted as a mask to the realization that man is an animal like many other life forms. Our culture has allowed us to transcend lower organisms to the point that we lack cognizance of the need to react with nature in harmony with its many systems. But, no matter what man's attitude toward the earth may be, population growth is one of the most important problems facing our country and the world. Our quality of living and the existence of life on this planet may depend, in part, on the number of future births in our nation.

We now understand some of the reasons why man desires several children. More importantly, there may be methods of changing these needs and motivations. We know that a coercion population control policy in a democratic society will not be as productive as an attitudinal change toward the two-child family.

Changing the momentum of this nation may sound unrealistic. However, the basic modification from resource consumption to an ideal of environmental quality is already a part of our new youth. Even the over 30 generation is dissatisfied with our abandonment of beauty and of the increasing environmental deterioration. Population control via education and birth control techniques is not offered as a panacea. But a reduction in the number of births has the potential of relieving stresses on the environment so that we can view our society's maladies with a clearer perspective and without the complication of vast population numbers. It seems appropriate, in closing to add a word from Pogo. He said, "We have met the enemy and he is us."

NOTES

[1] Herman P. Miller, "Population Pollution and Affluence," *Population Reference Bureau,* No. 36 (March 1971), p. 7.

[2] "The Future Population of the United States," *Population Bulletin,* (February 1971), p. 7.

[3] Rufus E. Miles, Jr., "Whose Baby is the Population Problem?" *Population Bulletin,* (April, 1970), pp. 18-19.

[4] "Future Population of the United States," op. cit., pp. 11-20.

[5] Dean Fraser, *The People Problem* (Bloomington: Indiana University Press, 1971), pp. 8-9.

[6] Dean E. Abrahamson, *Environmental Cost of Electric Power* (New York: Scientists' Institute for Public Information, 1970), p. 4.

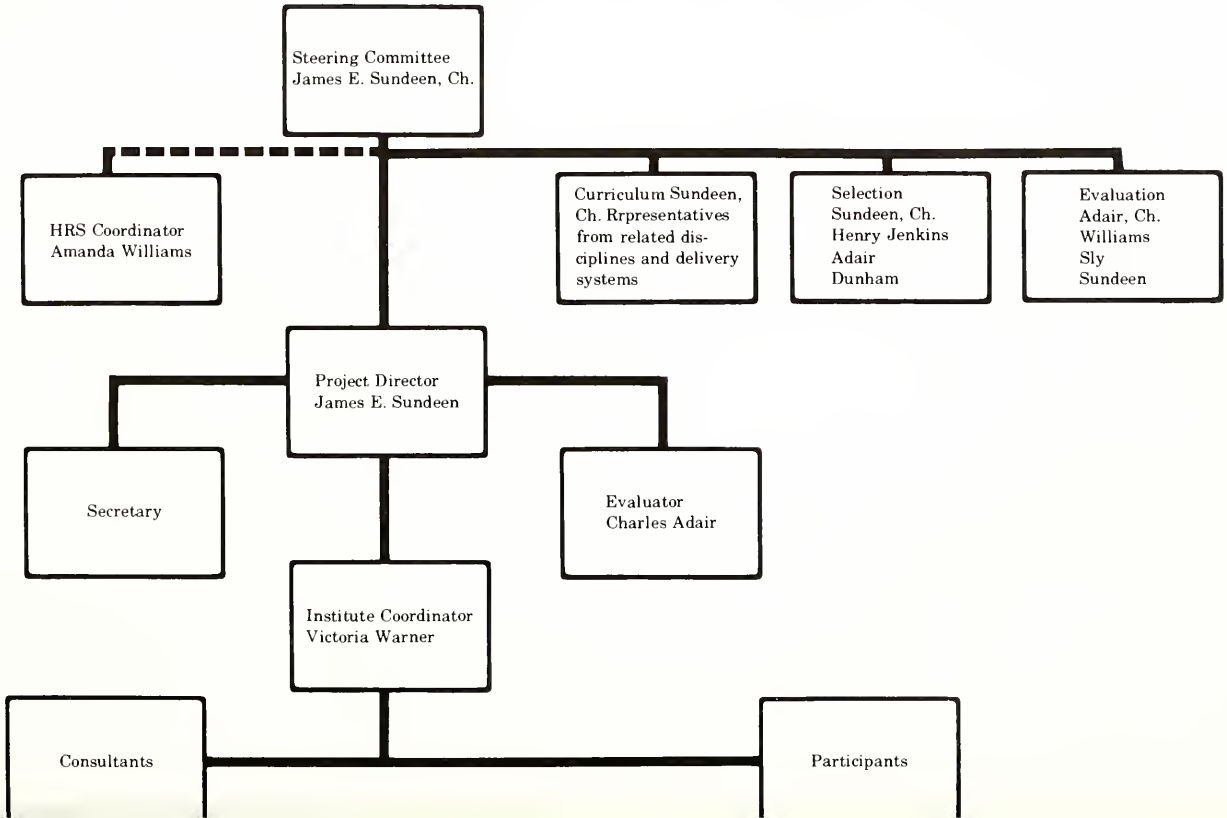
[7] Fraser, op. cit., pp. 31-39.

[8] *IBID,* pp. 78-102.

[9] Miles, op. cit., pp. 9-10.

[10] Ibid, pp. 24-30.

ORGANIZATIONAL CHART
FAMILY PLANNING AND POPULATION STUDIES PROJECT



INSTITUTE ADVISORY COMMITTEES

Steering Committee

The Steering Committee was responsible for reviewing and approving the recommendations of the three sub-committees including all budgetary expenditures. It was composed of individuals representing the several institutions and agencies involved. Each member was also a member of at least one of the three sub-committees to provide continuity between committees.

James E. Sundeen, Chairman	Florida State University, Department of Social Studies Education
Charles H. Adair	Florida State University, Department of Social Studies Education
Robert Browning	Department of Health and Rehabilitative Services
Susan Ellzey	Department of Education, Division of Community Colleges
Clinita Ford	Florida A&M University, School of Home Economics
Sidney Henry	Board of Regents, Division of Academic Affairs
Harold Jenkins	Florida A&M University, Division of Continuing Education
Dorothy Millstone	Planned Parenthood/World Population, New York, New York

PARTICIPANT SELECTION COMMITTEE

This committee developed participant selection criteria, reviewed participants' applications, and recommended to the Steering Committee its choice of participants

James E. Sundeen, Chairman	Florida State University, Department of Social Studies Education

Charles H. Adair	Florida State University, Department of Social Studies Education
Richard Dunham	Florida State University, Department of Psychology
Sidney Henry	Board of Regents, Division of Academic Affairs
Harold Jenkins	Florida A&M University, Division of Continuing Education

CURRICULUM COMMITTEE

This committee made recommendations to the Steering Committee on consultants to be employed for the summer institute, identified relevant materials to be used in the summer institute and developed the conceptual framework for the institute program. It also made recommendations as to the nature of materials to be published by the Institute.

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James E. Sundeen	Florida State University, Department of Social Studies Education
Amanda Williams	Department of Health and Rehabilitative Services

Florida A&M University
- Dr. Doris N. Alston, Psychology
- Dr. Rodney A. Burrows, Political Science
- Mr. John Foxx, School of Pharmacy
- Mrs. Edwina Martin, Health Education
- Miss Evelyn Redding, Nursing Education
- Mr. James Reid, Sociology
- Dr. Charles U. Smith, Sociology
- Mrs. Genevieve Thomas, Home Economics
- Mrs. Victoria Warner, Institute Coordinator

Florida State University
- Dr. Charles H. Adair, Institute Evaluator
- Mrs. Marie E. Cowart, School of Nursing
- Dr. James Doyle, Urban & Regional Planning
- Dr. Richard Dunham, Psychology
- Dr. Michael Johnson, Biological Sciences
- Dr. Byron G. Massialas, Social Studies Education
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- Dr. David Sly, Sociology
- Mrs. Patricia Vance, Social Work

Junior Colleges
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- Mr. Jay Bergman, Seminole Junior College
- Mr. Walter B. McMullen, St. Petersburg Junior College
- Mrs. Daisy Reaves, Central Florida Junior College

Date Due

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DEC 07 1987	DEC 07 1987		
JAN 06 1992	DEC 11 1991		